# SONY

NTSC/PAL



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# INTRODUCTION

# Camera Technologies

# SuperExwave™ Technology (SSC-E470 Series)

During nighttime monitoring applications, camera sensitivity is one of the most important factors in capturing a clear image.

Sony cameras that incorporate SuperExwave technology achieve extremely high sensitivity levels especially in the near infrared wavelength region of the electromagnetic spectrum. As a result, sensitivity levels in the visible wavelength region are increased by approximately 10 %, while the sensitivity in the near infrared region is increased by approximately 50 % when compared to Exwave HAD technology. Sony SuperExwave cameras employ advanced photo-diode sensors capable of capturing a great amount of light in the near infrared region while efficiently converting this light to electric signals thus achieving highsensitivity levels.

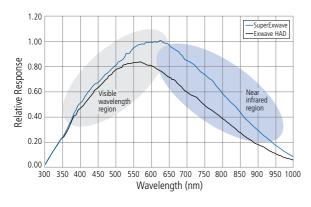




<SuperExwave> <ExwaveHAD>

Shooting environment: LED lights (wavelength 950 nm, irradiation distance 1 m), Dark room

Fig.1 SuperExwave vs Exwave HAD Image Comparison



<sup>\*</sup>This chart has been simplified to show the difference in sensitivity between SuperExwave and Exwave HAD. The values are for reference only.

Fig.2 SuperExwave vs Exwave HAD Spectral Sensitivity Comparison

# DynaView™ Technology (SSC-DC590 series)

Newly developed DynaView technology achieves an incredible dynamic range that is 128 times wider than conventional cameras. Users can capture clear images even in extreme high-contrast lighting environments. By activating the DynaView mode, the camera will capture the same image twice - first with a normal shutter speed, and then with a high shutter speed. The newly developed LSI technology then combines the dark areas captured at normal shutter speed with the bright areas captured at high shutter speed to create one image.

The result is an extremely high-contrast picture that is unattainable with a conventional camera. (See Fig. 3) Additionally, DynaView technology allows the cameras to achieve more powerful Back- Light Compensation (BLC). While conventional BLC can result in over exposure when capturing background images, DynaView reduces this to a minimum by using a high shutter speed for the background, which consequently provides optimum exposure for both the subject and the background.

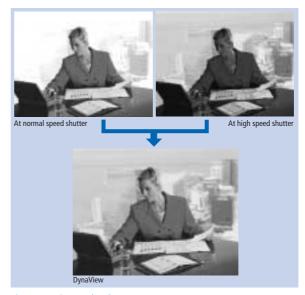


Fig.3 Dynaview Technology

# Variable Gamma Curve (SSC-DC590 series/SSC-DC570 series/SSC-DC80 series)

Users can choose from four preset gamma curves, including two unique gamma curves, so that the brightness levels of captured images are controlled precisely. Images in their entirety can be displayed clearly and accurately. (i.e. not too bright and not too dark). (See Fig. 4) One of the two unique gamma curves reduces the brightness level of the dark portions of the image, while increasing the brightness level of the bright portions of the image, which is ideal for scenes that have very little contrast (SCENE2; See Fig. 5).

The other unique gamma curve increases the brightness level of the dark portions of the image, while reducing the brightness level of the bright portions of the image (SCENE3; See Fig. 5).

By selecting a gamma curve that is appropriate for a given scene, captured images can be reproduced clearly and sharply.

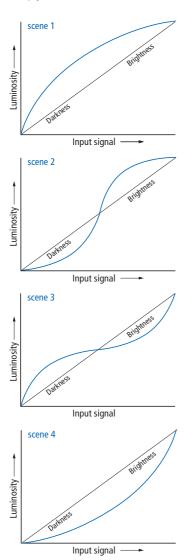


Fig.4 Four Preset Gamma Curves

### SCENE 2





# SCENE 3





Fig.5 Image Comparison

# Image Processing Technologies

# JPEG vs. MPEG-4

JPEG compression, which is conventionally used in surveillance and monitoring systems is very good for capturing high-quality still images. MPEG-4, on the other hand, is ideal for image transfer over a network while maintaining high-quality moving images. This is because MPEG-4 requires a relatively small amount of network bandwidth as a result of its structure as can be seen below.

# At 30 fps, 1 sec = 30 images I GOV, 1 sec = 1 I-VOP and 29 P-VOPs

Note: Each frame in MPEG-4 is referred to as a Video Object Plane (VOP).

A Group of VOPs (GOV) comprises of one second\* of video. An I-VOP is the first (Initial) "frame" of a GOV and is often referred to as an "anchor." The I-VOP is similar to a JPEG image. P-VOPs are "Predictive" VOPs and only "captures" movement relative to the previous VOP.

# **Rough Calculation of Data Size**

# **JPEG**

With JPEG at 30 fps, 1 sec = 30 images. Assuming each JPEG image is 30 KB in size, then one second of video is 900 KB. At 8 bits per Byte, this translates to **7.2 Mb/s** 

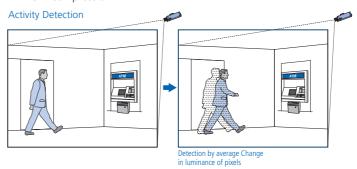
### MPEG-4

With MPEG-4, the I-VOP is approximately 30 KB in size. Assuming there is little movement in the image, each P-VOP is approximately 2 KB in size. This means that 1 second of data is approximately 88 KB. Again, using the same calculations as above, this translates to

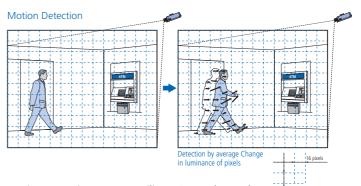
704 Kb/s. This is approximately 1/10th the size of JPEG data.

# Activity Detection vs. Motion Detection (SNC Series Cameras)

The following is a brief explanation outlining the differences between Motion Detection and Activity Detection: The general difference in concept between the two detection methods is that Motion Detection utilizes vector information associated with movement while Activity Detection utilizes the difference in illumination between frames. Activity Detection is available with JPEG compression while Motion Detection is available with MPEG-4 compression.



Sony Activity Detection systems utilize hardware that performs difference calculations in luminance between frames. The absolute value of the difference in luminace of each pixel is taken from one frame to the next. If the sum of the difference is greater than a preset threshold, then an alarm is triggered.



Motion Detection systems utilize a Sony advanced algorithm to determine whether or not there is actual movement in the camera viewing area. This algorithm is based on vector information available and inherent in MPEG-4 compression. The vector information is determined based on the amount of movement in 16 x 16 pixel-areas in the grid.

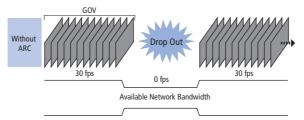
Motion Detection has an advantage over Activity Detection because it can reduce the number of false alarms caused by noise. Other advantages of Sony systems that use Motion Detection are that up to four distinct Motion Detection areas can be assigned, and real time indicators are available to monitor sensitivity and threshold levels.

<sup>\*</sup>The default GOV setting for Sony MPEG-4 cameras is one second The length of a GOV can be set between one and five seconds.

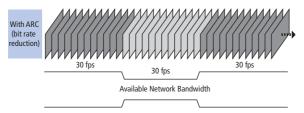
# Network Technologies

# **Adaptive Rate Control (ARC)**

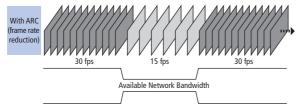
ARC is a feature that adjusts the compression bit rate and the frame rate of MPEG-4 data in order to meet changing traffic conditions over a network. Round Trip Time (RTT) and actual IP packet loss are both monitored to determine traffic conditions, and the bit rate and frame rate are adjusted automatically. "Drop Outs" (a breakup in transmitted images) can be avoided when a system is equipped with the ARC feature. The following is a graphical representation of how ARC works:



Without an ARC feature, as the available network bandwidth is reduced due to high-traffic conditions, "Drop Outs" occur.



With ARC, as the available network bandwidth is reduced due to high-traffic conditions, the MPEG-4 data bit rate is reduced. This lowers image resolution slightly, but smooth moving images are still transferred.



If network traffic conditions continue to increase, then the ARC feature lowers the frame rate of the data so that dropouts do not occur and a continuous image stream is transferred. This method still provides smooth moving images at a lower frame rate.

# **NETWORK CAMERAS**

Stunning video and audio brought to you by "IPELA" fashions the novel reality for the modern businessperson. Sharing ideas and dreams as if you are collocated when your counterpart is half-way around the world, experiencing images as if you are actually there, this is "IPELA." Real audiovisual communication over networks-this is business communication of the future, this is business communication brought to you today, this is "IPELA."

# SNC-RZ30N/2, SNC-RZ30P/2 NEW





- High performance IP network color camera with integrated pan/tilt/zoom
- JPEG compression
- Remote monitoring from PCs using Microsoft Internet Explorer or Sony's IMZ-RS Series Intelligent Monitoring Software
- 100Base-TX/10Base-T Ethernet
- Integral 25x auto-focus zoom lens covers a wide range of viewing angles
- High-speed and quiet pan/tilt mechanism
- High picture quality 1/6-type Super HAD™ CCD
- High sensitivity 2.5 lx (F1.6, 50IRE)
- High-frame rate of up to 30 fps (SNC-RZ30N/2)/25 fps (SNC-RZ30P/2) at 640 x 480) sized image
- Four selectable image sizes
- Pan/Tilt operation 340 degree Pan range/115 degree Tilt range
- Day/Night mode automatically senses lighting changes and switches camera mode from color to B/W or via an external trigger
- Image stabilizer
- Simultaneous access up to 50 users
- Networking security features IP filtering/Password protection
- Activity detection and alarm trigger functions
- Image transfer using FTP or SMTP
- RS-232C/RS-485 transparency interface for control and operation of external equipments
- Two Type II PC card\*1 slots supports Memory Stick, Flash memory card, ATA HDD card and IEEE802.11b Wireless LAN Card
- Wall-mount or ceiling-mount operation
- Analog composite video output for local analog viewing or recording
- \*1 Please contact your local Sony sales office for compatible PC cards and wireless card.



SNC-RZ30N/2, RZ30P/2 Rear

# SNC-RZ25N/SNC-RZ25P





# IPELA

- All-in-one IP network color camera with integrated pan/tilt/zoom
- MPEG-4 and JPEG compression
- Remote monitoring from PCs using Microsoft Internet Explorer or Sony's IMZ-RS Series Intelligent Monitoring Software
- 100Base-TX/10Base-T Ethernet
- Integral 18x auto-focus zoom lens covers a wide range of viewing angles
- High picture quality 1/4-type CCD with Exwave HAD technology
- High sensitivity 0.7 lx (F1.4, 50IRE)
- High-frame rate of up to 30 fps (SNC-RZ25N)/25 fps (SNC-RZ25P) at 320 x 240 sized image
- Six selectable image sizes
- Pan/Tilt operation 340 degree Pan range/120 degree Tilt range
- External microphone input and speaker output for audio monitoring
- Day/Night function automatically senses lighting changes and switches camera mode from color to B/W or via an external trigger
- Adaptive rate control function provides smooth video over network by adjusting compression ratio and frame rate automatically
- Multicasting capability
- Simultaneous access up to 20 (JPEG mode)/10 (MPEG mode) users
- Networking security features IP filtering/Password protection
- Motion detection\*2 and alarm trigger functions
- Image transfer using FTP or SMTP
- Compact Flash™ Type card slot support an optional SNCA-CFW1 Wireless Card or Compact Flash™ card
- Wall-mount or ceiling-mount operation
- Analog composite video output for local analog viewing or recording
- \*2 Motion detection function can be used when a monitoring image is set to a MPEG-4.



### SNC-Z20N/SNC-Z20P



- Fixed All-in-one IP network color camera with integrated zoom lens
- JPEG compression
- Remote monitoring from PCs using Microsoft Internet Explorer or Sony IMZ-RS Series Intelligent Monitoring Software
- 100Base-TX/10Base-T Ethernet
- Integral 18x auto-focus zoom lens covers a wide range of viewing angles
- High picture quality 1/4-type CCD with Exwave HAD technology
- High sensitivity Color: 0.7 lx, B/W: 0.01 lx (F1.4, 50IRE)
- High frame rate of up to 30 fps (SNC-Z20N)/25 fps (SNC-Z20P) at 640 x 480 image size
- Four selectable image sizes
- Day/Night function automatically senses lighting changes and switches camera mode from color to B/W
- Simultaneous access up to 50 users
- Networking security features IP filtering/password protection
- Activity detection and alarm trigger functions
- Image transfer using FTP or SMTP
- One PC card slot<sup>\*3</sup> providing support for Memory Stick<sup>™</sup>, Flash ATA memory card, and ATA HDD card
- Wireless connection capability\*3
- Analog composite video output for local analog viewing or recording
- RS-232C transparency interface for control and operation of external equipment
- AC 24 V or DC 12 V external power capability



SNC-Z20N/Z20P Rear

\*3 Please contact a local Sony sales office or authorized dealer for compatible PC and wireless cards.

### SNC-CS3N/SNC-CS3P



- Fixed All-in-one IP network color camera with CS-mount auto auto iris vari-focal lens
- JPEG compression
- Remote monitoring from a PC using Microsoft Internet Explorer or Sony IMZ-RS Series Intelligent Monitoring Software
- 100Base-TX/10Base-T Ethernet
- Auto-iris vari-focal lens (f=3.0 to 8.0 mm, F1.0)
- High picture quality 1/3-type CCD with Exwave HAD technology
- High sensitivity 0.5 lx at F1.0
- High frame rate of up to 25 fps at 640 x 480 image size
- Four selectable image sizes
- Simultaneous access up to 50 users
- Networking security features IP filtering/password protection
- Activity detection and alarm trigger functions
- Image transfer using FTP or SMTP
- Analog composite video output for local analog viewing or recording
- RS-232C transparency interface for control and operation of external equipment
- Selectable power supply automatically selects AC 24 V or DC 12 V for proper operation



SNC-CS3N/CS3P Rear

# **NETWORK CAMERAS**

# SNC-DF70N/SNC-DF70P NEW





# IPELA

- All-in-one IP network mini dome color camera for both outdoor and indoor use
- MPEG-4 and JPEG compression
- Remote monitoring from PCs using Microsoft Internet Explorer or Sony's IMZ-RS series Intelligent Monitoring Software.
- 100Base-TX/10Base-T Ethernet
- Built-in CS-mount auto iris 2.7x vari-focal lens covers wide viewing angles
- Rugged design IP66\*4 rated
- High-picture quality 1/4-type Super HAD CCD
- Horizontal resolution 480 TV lines
- High sensitivity 0.9 lx (F1.0, 50IRE)
- High-frame rate of up to 30 fps (SNC-DF70N)/25 fps (SNC-DF70P) at 320 x 240 sized image
- Six selectable image sizes
- External microphone input and speaker output for bidirectional audio capability
- Day/Night function automatically senses lighting changes and switches camera mode from color to B/W or via an external trigger
- Wall-mounted or ceiling-mounted installation
- Adaptive rate control function provides smooth video over network by adjusting compression ratio and frame rate automatically
- Multicasting capability
- Simultaneous access up to 20(JPEG mode)/10 (MPEG-4 mode) users
- Networking security features IP filtering/Password protection
- Motion detection\*5 and alarm trigger function
- Pre-/Post-Alarm image storage
- Image transfer using FTP or SMTP
- Analog composite video output for local analog viewing or recording
- \*4 Ingress Protection(IP) standard is a system for numerically classifying the degree of protection provided by enclosures of electrical equipment against solid objects and liquids. IP66 means there is no ingress of dust and the equipment is protected against powerful water jets.
- \*5 Motion detection function can be used when a monitoring image is set to a MPEG-4.

# SNC-DF40N/SNC-DF40P NEW





# IPELA

- All-in-one IP network mini dome color camera
- MPEG-4 and JPEG compression
- Remote monitoring from PCs using Microsoft Internet Explorer or Sony's IMZ-RS series Intelligent Monitoring Software.
- 100Base-TX/10Base-T Ethernet
- Easy GUI based operations
- Built-in CS-mount auto auto iris 2.7x vari-focal lens covers wide viewing angles
- High-picture quality 1/4-type Super HAD CCD
- Horizontal resolution 480 TV lines
- High sensitivity 0.8 lx (F1.0, 50IRE)
- High-frame rate of up to 30 fps (SNC-DF40N)/25 fps (SNC-DF40P) at 320 x 240 sized image
- Six selectable image sizes
- External microphone input and speaker output for bidirectional audio capability
- Wall-mounted or ceiling-mounted installation
- Adaptive rate control function provides smooth video over network by adjusting compression ratio and frame rate automatically
- Multicasting capability
- Simultaneous access up to 20(JPEG mode)/10 (MPEG-4 mode) users
- Networking security features IP filtering/Password protection
- Motion detection\*6 and alarm trigger function
- Pre-/Post-Alarm image storage
- Image transfer using FTP or SMTP
- Analog composite video output for local analog viewing or recording



SNC-DF40N/DF40P Rear

<sup>\*6</sup> Motion detection function can be used when a monitoring image is set to a MPEG-4.

# SNC-P5 NEW



# IPELA

- All-in-one IP network color camera with integrated pan/tilt/zoom
- MPEG-4 and JPEG compression
- Remote monitoring from PCs using Microsoft Internet Explorer or Sony's IMZ-RS series Intelligent Monitoring Software.
- 100Base-TX/10Base-T Ethernet
- Easy GUI based operations
- High-frame rate of up to 30 fps at 320 x 240 sized image
- Six selectable image sizes
- External microphone input and speaker output for bidirectional audio capability
- Pan/Tilt operation- 120 degree Pan range/ 75 degree Tilt range
- Optical 3x zoom capability
- Adaptive rate control function provides smooth video over network by adjusting compression ratio and frame rate automatically
- Multicasting capability
- Simultaneous access up to 20(JPEG mode)/10(MPEG-4 mode) users
- Networking security features IP filtering/Password protection
- Motion detection\*7 and alarm trigger function
- Pre-/Post-Alarm image storage
- Image transfer using FTP or SMTP
- Compact Flash™ type card slot- support for optional SNCA-CFW1 Wireless Card or Compact Flash card
- Wall-mounted or ceiling-mounted installation
- Analog composite video output for local analog viewing or recording
- Can be used in outdoor environment with the optional SNCA-HP5 Housing Kit



SNC-P5 Rear

\*7 Motion detection function can be used when a monitoring image is set to a MPEG-4.

# SNC-P1 NEW



IPELA

- Fixed All-in-one IP network color camera
- MPEG-4 and JPEG compression
- Compact and slim design
- Remote monitoring from PCs using Microsoft Internet Explorer or Sony's IMZ-RS series Intelligent Monitoring Software.
- 100Base-TX/10Base-T Ethernet
- Easy GUI based operations
- High-frame rate of up to 30 fps at 320 x 240 sized image
- Six selectable image sizes
- External microphone input and speaker output for bidirectional audio capability
- Adaptive rate control function provides smooth video over network by adjusting compression ratio and frame rate automatically
- Multicasting capability
- Simultaneous access up to 20(JPEG mode)/10(MPEG-4 mode) users
- Networking security features IP filtering/Password protection
- Motion detection\*8 and alarm trigger function
- Pre-/Post-Alarm image storage
- Image transfer using FTP or SMTP
- Desk-top, wall-mounted, or ceiling-mounted installation
- Analog composite video output for local analog viewing or recording



SNC-P1 Rear

<sup>\*8</sup> Motion detection function can be used when a monitoring image is set to a MPEG-4.

# **NETWORK CAMERAS**

# SNC-M3/SNC-M3W NEW





- All-in-one IP network color camera with integrated pan/tilt
- MPEG-4 and JPEG compression
- Compact and lightweight design
- Remote monitoring from PCs using Microsoft Internet Explorer
- 100Base-TX/10Base-T Ethernet
- Easy GUI based operations
- High-frame rate of up to 30 fps at 320 x 240 sized image
- Three selectable image sizes
- Built-in microphone, external microphone input and speaker output for bidirectional audio capability
- Pan/Tilt operation 120 degree Pan range/70 degree Tilt range
- Wireless operation capability (SNC-M3W)
- Simultaneous access up to 10 users (both JPEG/MPEG-4 mode)
- Networking security features IP filtering/Password protection
- E-mail notification function with motion detection\*9
- Desk-top, wall-mounted, or ceiling-mounted installation

\*9 Motion detection function can be used when a monitoring image is set to a MPEG-4.



SNC-M3/M3W Rear

### SNC-M1/SNC-M1W NEW





- Fixed all-in-one IP network color camera
- MPEG-4 and JPEG compression formats
- Compact and lightweight design
- Remote monitoring from PCs using Microsoft Internet Explorer
- 100Base-TX/10Base-T Ethernet
- Easy GUI based operations
- High-frame rate of up to 30 fps at 320 x 240 sized image
- Three selectable image sizes
- Built-in microphone, external microphone input and speaker output for bidirectional audio capability
- Wireless operation capability (SNC-M1W)
- Simultaneous access up to 10 users (both JPEG/MPEG-4 mode)
- Networking security features IP filtering/Password protection
- E-mail notification function with motion detection\*10
- Desk-top, wall-mounted, or ceiling-mounted installation

<sup>\*10</sup> Motion detection function can be used when a monitoring image is set to a MPEG-4.



SNC-M1/M1W Rear

# **ANALOG CAMERAS**

# SSC-E473/SSC-E473P/SSC-E478P NEW





- 1/3-type CCD with SuperExwave technology
- Advanced Digital Signal Processing (DSP) technology provides high-horizontal resolution of 540 TV lines
- Day/Night function automatically senses lighting changes and switches camera mode from color to B/W or via an external trigger
- High sensitivity Color: 0.55 lx, B/W: 0.05 lx (F1.2, 50IRE)
- Slim and stylish design equipped with front and rear covers
- CCD IRIS function allows for the use of low cost manual iris lenses
- Backlight compensation: ON/OFF switchable
- AGC: TURBO/OFF switchable
- Wide range CCD IRIS (ON/OFF switchable, 1/60 to 1/100,000 s (SSC-E473), 1/50 to 1/100,000 s (SSC-E473P, SSC-E478P))
- Selectable Auto White balance mode: ATW/ATW pro
- DC-Servo lens connection capability
- CS-mount
- Variety of power requirements SSC-E473/473P: automatically selects AC 24 V or DC 12 V for proper operation SSC-E478P: AC 220 to 240 V operation



SSC-E473/E473P Rear



SSC-E478P Rear

### SSC-E453/SSC-E453P/SSC-E458P





- 1/3-type CCD with SuperExwave technology
- Advanced Digital Signal Processing (DSP) technology provides high-horizontal resolution of 540 TV lines
- High sensitivity 0.55 lx (F1.2, 50IRE)
- Slim and stylish design equipped with front and rear covers
- CCD IRIS function allows for the use of low cost manual iris lenses
- Backlight compensation: ON/OFF switchable
- AGC: TURBO/OFF switchable
- Wide range CCD IRIS (ON/OFF switchable, 1/60 to 1/100,000 s (SSC-E453), 1/50 to 1/100,000 s (SSC-E453P, SSC-E458P))
- Selectable Auto White balance mode: ATW/ATW pro
- DC-Servo lens connection capability
- CS-mount
- Variety of power requirements SSC-E453/453P: automatically selects AC 24 V or DC 12 V for proper operation SSC-E458P: AC 220 to 240 V operation



SSC-E453/E453P Rear



SSC-E458P Rear

# **ANALOG CAMERAS**

# SSC-DC80/SSC-DC80P/SSC-DC83/SSC-DC83P/SSC-DC88P NEW



- 1/2-type CCD with Exwave HAD technology
- Horizontal resolution 480TV lines
- High sensitivity 0.4 lx (F1.2, 50IRE)
- AGC: TURBO/NORMAL/MANUAL/OFF switchable
- Aperture: SHARP/SOFT/NORMAL switchable
- White balance: ATW PRO/ATW/3200K/5600K/MANUAL switchable
- Backlight compensation: SPOT/WEIGHT/OFF switchable
- Four selectable gamma curves
- Accepts video or DC auto iris lenses
- Camera title indication
- CS/C\*11-mount
- SSC-DC80/DC80P provides single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W170A/W270A (for SSC-DC80) and YS-W170P/W270P (for SSC-DC80P) camera adaptor
- Variety of power requirements SSC-DC80/DC80P: DC 12 V operation SSC-DC83/DC83P: automatically selects AC 24 V or DC 12 V for proper operation SSC-DC88P: AC 220 to 240 V operation

### \*11 C-mount adaptor is supplied







SSC-DC80/DC80P Rear

SSC-DC83/DC83P Rear

SSC-DC88P Rear

### SSC-DC573/SSC-DC573P/SSC-DC578P NEW



- 1/3-type CCD with DynaView technology
- Wide dynamic range with DynaView technology ideal for obtaining clear color images under severe highlight or backlight conditions
- Horizontal resolution 480 TV lines
- High sensitivity 0.8 lx (F1.4, 50 IRE)
- AGC: TURBO/NORMAL/MANUAL/OFF switchable
- Aperture: SHARP/SOFT/NORMAL switchable
- White balance: ATW PRO/ATW/3200K/5600K/MANUAL switchable
- Backlight compensation: DYNAVIEW/SPOT/WEIGHT/OFF switchable
- Four selectable gamma curves
- Accepts video or DC auto iris lenses
- Camera title indication
- Wide range CCD IRIS (1/60 to 1/100,000 s, (SSC-DC573), 1/50 to 1/100,000 s (SSC-DC573P, SSC-DC578P))
- Activity detection
- Privacy Zone Masking function
- Two preset memories for camera setting
- CS-mount
- Variety of power requirements SSC-DC573/DC573P: automatically selects AC 24 V or DC 12 V for proper operation SSC-DC578P: AC 220 to 240 V operation





SSC-DC573/DC573P Rear

SSC-DC578P Rear

### SSC-DC590/SSC-DC593/SSC-DC593P/SSC-DC598P





- 1/3-type CCD with DynaView technology
- Wide dynamic range with DynaView technology ideal for obtaining clear color images under severe highlight or backlight conditions
- Day/Night function automatically senses lighting changes and switches camera mode from color to B/W or via an external trigger
- Horizontal resolution 480 TV lines
- High sensitivity Color: 0.8 lx, B/W: 0.07 lx (F1.4, 50 IRE)
- AGC: TURBO/NORMAL/MANUAL/OFF switchable
- Aperture: SHARP/SOFT/NORMAL switchable
- White balance: ATW PRO/ATW/3200K/5600K/MANUAL/DUAL switchable
- Backlight compensation: DYNAVIEW/SPOT/WEIGHT/OFF switchable
- Four selectable gamma curves
- Accepts video or DC auto iris lenses
- Camera title indication
- Wide range CCD IRIS (1/60 to 1/100,000 s, (SSC-DC590, SSC-DC593), 1/50 to 1/100,000 s (SSC-DC593P, SSC-DC598P))
- Activity detection and alarm trigger functions
- Privacy Zone Masking function
- Two preset memories for camera setting
- RS-485 interface for remote control
- CS-mount
- SSC-DC590 provides single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS- W170AW270A camera adaptor.
- Variety of power requirements SSC-DC590: DC 12 V operation SSC-DC593/DC593P: automatically selects AC 24 V or DC 12 V for proper operation SSC-DC598P: AC 220 to 240 V operation



SSC-DC590 Rear



SSC-DC593/DC593P Rear



SSC-DC598P Rear

# **ANALOG CAMERAS**

# SSC-DC374/SSC-DC372P/SSC-DC378P





- 1/3-type Super HAD CCD
- Horizontal resolution 480 TV lines
- High sensitivity 0.8 lx (F1.2, 50IRE)
- Compact and lightweight design
- CCD IRIS function allows for the use of low cost manual iris lenses
- Backlight compensation: ON/OFF switchable
- AGC: TURBO/OFF switchable
- Wide range CCD IRIS (ON/OFF switchable, 1/60 to 1/100,000 s (SSC-DC374), 1/50 to 1/100,000 s (SSC-DC372P, SSC-DC378P))
- Wide range Auto Tracing White balance (ATW)
- Accepts DC auto iris lenses
- CS-mount
- Variety of power requirements
   SSC-DC374: AC 24 V operation
   SSC-DC372P: DC 12 V operation
   SSC-DC378P: AC 220 to 240 V operation







SSC-DC372P Rear



SSC-DC378P Rear

### SSC-DC193/SSC-DC193P/SSC-DC198P



- Ideal for low light applications
- 1/3-type Super HAD CCD
- Horizontal resolution 330 TV lines
- High sensitivity 0.6 lx (F1.2, 50IRE)
- Compact and lightweight design
- Built-in tripod screw holes for easy installation
- Digital Signal Processing (DSP)
- Sync system
  - SSC-DC193/DC193P: Internal/AC line lock SSC-DC198P: AC line lock
- Backlight Compensation: ON/OFF switchable
- AGC: TURBO/OFF switchable
- Wide range CCD IRIS (ON/OFF switchable, 1/60 to 1/100,000 s (SSC-DC193), 1/50 to 1/100,000 s (SSC-DC193P, SSC-DC198P))
- CCD IRIS function allows for the use of low cost manual iris lenses
- Wide range Auto Tracing White balance (ATW)
- Accepts video or DC auto iris lenses
- CS-mount
- Variety of power requirements

SSC-DC193/DC193P: automatically selects AC 24 V or DC 12 V for proper operation

SSC-DC198P: AC 220 to 240 V operation







SSC-DC198P Rear

# SSC-DC174/SSC-DC172P NEW



- 1/3-type CCD with Super HAD technology
- Horizontal resolution 330 TV lines
- High sensitivity 0.6 lx (F1.2, 50IRE)
- Digital Signal Processing (DSP) technology provides powerful picture-contrast control
- Compact and lightweight design
- CCD IRIS function allows for the use of low cost manual iris lenses
- Built-in tripod screw holes for easy installation
- Backlight compensation: ON/OFF switchable
- AGC: TURBO/OFF switchable
- Wide range CCD IRIS (ON/OFF switchable, 1/60 to 1/100,000 s (SSC-DC174), 1/50 to 1/100,000 s (SSC-DC172P))
- Wide range Auto Tracing White balance (ATW)
- Accepts DC auto iris lenses
- CS-mount
- Variety of power requirements SSC-DC174: AC 24 V operation SSC-DC172P: DC 12 V operation





SSC-DC174 Rear

# SSC-M383/SSC-M383CE/SSC-M388CE (B/W)



- Ideal for low light applications
- 1/3-type CCD with Exwave HAD technology
- Horizontal resolution 570 TV lines
- High sensitivity 0.07 lx (F1.2, 50IRE)
- Compact and lightweight design
- Built-in tripod screw holes for easy installation
- Sync system

SSC-M383/M383CE: Internal/AC line lock

SSC-M388CE: AC line lock

- Backlight Compensation: ON/OFF switchable (when CCD IRIS is ON)
- AGC: TURBO (up to 24 dB)/OFF switchable
- Wide range CCD IRIS (ON/OFF switchable, 1/60 to 1/100,000 s (SSC-M383), 1/50 to 1/100,000(SSC-M383CE, SSC-M388CE))
- CCD IRIS function allows for the use of low cost manual iris lenses
- Accepts video or DC auto iris lenses
- CS-mount
- Variety of power requirements

SSC-M383/383CE: automatically selects AC 24 V or DC 12 V for proper operation

SSC-M388CE: AC 220 to 240 V operation



SSC-M383/383CE Rear



SSC-M388CE Rear

# **ANALOG CAMERAS**

### SSC-M183/SSC-M183CE/SSC-M188CE (B/W)



- Ideal for low light applications
- 1/3-type Super HAD CCD
- Horizontal resolution 380 TV lines
- High sensitivity 0.06 lx (F1.2, 50IRE)
- Compact and lightweight design
- Built-in tripod screw holes for easy installation
- Sync system

SSC-M183/M183CE: Internal/AC line lock SSC-M188CE: AC line lock

- Backlight Compensation: ON/OFF switchable (when CCD IRIS is ON)
- AGC: TURBO (up to 24 dB)/OFF switchable
- Wide range CCD IRIS (ON/OFF switchable, 1/60 to 1/100,000 s (SSC-M183), 1/50 to 1/100,000(SSC-M183CE, SSC-M188CE))
- CCD IRIS function allows for the use of low cost iris lenses
- Accepts video or DC auto iris lenses
- CS-mount
- Variety of power requirements

SSC-M183/183CE: automatically selects AC 24 V or DC 12 V for proper operation

SSC-M188CE: AC 220 to 240 V operation





SSC-M183/M183CE Rear

SSC-M188CE Rear

# SSC-CD73V/SSC-CD73VT/SSC-CD73VP



- Built-in CS-mount auto iris vari-focal lens covers a wide range of viewing angles (f=3.0 to 8.0 mm)
- 1/4-type Super HAD CCD
- High sensitivity Color: 0.9 lx, B/W: 0.2 lx (F1.0, 50IRE, AGC ON)
- Rugged design IP66 rated
- Day/Night mode automatically senses lighting changes and switches camera mode from color to B/W or via an external trigger
- BNC type analog composite video output (SSC-CD73V, SSC-CD73VP)
- Network Video Technologies (NVT) twisted pair interface for easy installation (SSC-CD73VT)
- Designed for easy mounting and installation
- AC Line Lock capability for AC operation
- Backlight Compensation: ON/OFF switchable
- AGC: TURBO (up to 24 dB)/OFF switchable
- Wide range Auto Tracing White balance (ATW)
- CS-mount
- $\bullet$  Dual power capability automatically selects AC 24 V or DC 12 V for proper operation

### SSC-CD43V/SSC-CD43VT/SSC-CD43VP



- Built-in CS-mount auto iris vari-focal lens covers a wide range of viewing angles (f=3.0 to 8.0 mm)
- 1/4-type Super HAD CCD
- High sensitivity 0.8 lx (F1.0, 50IRE, AGC ON)
- BNC type analog composite video output (SSC-CD43V, SSC-CD43VP)
- Network Video Technologies (NVT) twisted pair interface for easy installation (SSC-CD43VT)
- Designed for easy mounting and installation
- AC Line Lock capability for AC operation
- Backlight Compensation: ON/OFF switchable
- AGC: TURBO (up to 24 dB)/OFF switchable
- Wide range Auto Tracing White balance (ATW)
- CS-mount
- Dual power capability automatically selects AC 24 V or DC 12 V for proper Operation

# **CAMERA ADAPTORS**

# YS-W270A/YS-W270P NEW





- Camera adaptor for Color video camera. (YS-W270A is for the SSC-DC590/DC80 and YS-W270P is for the SSC-DC80P)
- Provides DC power and video/sync signal between the adaptor and multiple cameras over a single coaxial cable
- Up to four cameras can be connected
- Internal or external synchronization with MPX-VS or MPX-VD
- Maximum cable length: 600 m with RG-11A/U (7C-2V) coaxial cable



YS-W270A/W270P Rear

# YS-W170A/YS-W170P NEW





- Camera adaptor for Color video camera. (YS-W170A is for the SSC-DC590/DC80 and YS-W170P is for the SSC-DC80P)
- Provides DC power and video/sync signal between a single adaptor and the camera over a coaxial cable
- Internal or external synchronization with MPX-VS or MPX-VD
- Maximum cable length: 600 m with RG-11A/U (7C-2V) coaxial cable



YS-W170A/W170P Rear

# **SYSTEMS AND SOFTWARE**

# Wide View Camera

XIS-10DC NEW





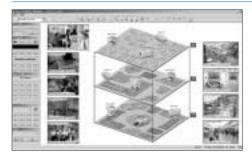
# IPELA



- Sensor camera capable of 360 degree coverage coupled with a Pan/Tilt/Zoom (PTZ) network camera in a unique IP66-compliant housing for outdoor use
- Easy-to-use software with an intuitive and user-friendly GUI
- Supplied extension arm for wall mounting, attachment to pole, or attachment to telephone pole\*12
- Separate viewer windows on a single screen (panorama view, PTZ camera view, tracking history thumbnail images, and views from two optional fixed cameras)
- Records images from both the sensor camera and PTZ camera
- High-quality JPEG compressed images
- High-resolution images 640 x 480, sensor camera: 7.5 fps, PTZ camera 10 fps
- "Auto cleanup" function to either overwrite data or stop recording when the disk is full
- Supports optional SSC Series analog cameras\*13 or SNC-Z20 network camera (monitoring)
- Recording of images from optional cameras when an e-mail is received from either the SNC-Z20 or SNT-V504/V501. E-mails can be sent when an alarm is triggered by either the sensor-in or the activity detection system\*14
- Wide area coverage of approximately 40 meters
- Automatic tracking and zooming in on moving objects using sophisticated tracking algorithm
- Search and playback of recorded images
- Optional wireless network configuration available
- Easy setup in LAN environment with automatic assignment of camera IP addresses
- \*12 When attaching to telephone pole, steel bands are required.
- \*13 Requires optional SNT-V504 or SNT-V501.
- \*14 Recording time is variable and can be set in increments of seconds.

# Intelligent Monitorning Software

# IMZ-RS300 Series (IMZ-RS301/RS304/RS309/RS316/RS332/RS300C) NEW



- Remote control, monitoring, and recording of up to 32 video cameras IMZ-RS301: Control PC software/license for 1 network video source IMZ-RS304: Control PC software/license for 4 network video sources IMZ-RS309: Control PC software/license for 9 network video sources IMZ-RS316: Control PC software/license for 16 network video sources IMZ-RS332: Control PC software/license for 32 network video sources IMZ-RS300C: Software/license for client PC when in client/server configuration
- Intelligent Motion Detection function
- Supports MPEG-4 network cameras
- Capable of recording, monitoring, and playing back G.711/G.726 audio
- "Layout Editor" for creating customized site layouts
- Monitoring from a Web browser\*15
- Definable "Action Areas" allows monitoring of specific cameras or areas
- Automatic layout "Tour" function
- "Hot Spot" monitoring and dual monitor support
- Supports a high frame rate of 30 fps at 640 x 480 pixels from network cameras such as the SNC-RZ30N\*16
- Manual/Scheduled/Alarm/Pre-alarm recording capabilities
- Supports playback during recording
- Quick and easy search of recorded images by thumbnail using time codes, alarm events, and/or comments as the search key
- Activity and/or motion detection to trigger an alarm
- E-mail notification when an alarm is triggered
- Dynamic Masking function to mask unwanted or prohibited areas of an image
- Camera Pan/Tilt/Zoom control capability
- Camera preset positions can be assigned and these positions can be "toured"
- API (Application Programming Interface) for developers and integrators to customize systems
- AVI file export
- Compatible with disk and/or tape archive systems
- Time stamped comments for easy search of material
- User/Group privileges to limit access to specific functions
- Customized logging reports for troubleshooting

<sup>\*15</sup> Requires Web gateway software

<sup>\*16</sup> Supports a maximum of 25 fps when connected to PAL cameras such as the SNC-RZ30P. In order to achieve the maximum frame rate, a client PC with adequate processing power and an adequate network environment are required.

# **VIDEO NETWORK STATION**

### SNT-V504/V501





SNT-V504



SNT-V501

- Ideal for video monitoring over networks (converts analog camera signals to TCP/IP)
- Camera images can be remotely monitored and controlled over existing networks (LAN/WAN)
- Built-in web server provides user-friendly interface for easy monitoring and control from networked PCs running a Web browser
- The SNT-V504 supports up to four video surveillance cameras and the SNT-V501 supports one camera
- Supports a high frame rate of up to 30 fps\*17 at a high-resolution of 704 x 480 (NTSC)/704 x 576 (PAL) to provide clear and smooth moving images
- Easy to install, expand, and maintain
- Multi-user access and password protection
- Video Out for local monitoring
- PC Card Slot\*<sup>18</sup> to increase storage capacity with flash memory or to configure in a wireless network with an IEEE 802.11b-compliant wireless PC card
- RS-232C/485 Interface for camera control including Pan/Tilt/Zoom control
- Transparency function allows control of external equipment from a PC on the network
- Built-in activity detection function to trigger an alarm
- Alarm image buffering allows for storage of pre-alarm and post-alarm images
- When an alarm occurs, a JPEG file showing the alarm event can be sent to predetermined e-mail addresses or to a server
- Alternate viewing modes with the SNT-V504, including single screen and two types of four-division split screens
- "Tour" feature for scanning pre-assigned patterns
- Viewing from a PDA\*19
- \*17 Supports a maximum of 25 fps with PAL camera systems. In order to achieve the maximum frame rate, a client PC with adequate processing power and an adequate network environment are required.
- \*18 Please contact your local Sony office or authorized dealer for information on memory and wireless cards compatible with the SNT-V501/V504.
- \*19 Compatible with PDAs running Microsoft® Pocket PC®. Requires the Jeode plug-in Ver. 1.9.1.



SNT-V504 Rear Panel



SNT-V501 Rear Panel

# **DIGITAL HARD DISK RECORDER**

# HSR-X206/HSR-206P





- 6-channel digital hard disk recorder with built-in multiplexer
- Large capacity 320 GB HDD (160 GB x 2, ATA/ATAPI-5 standard)
- Long recording time of 2686 hours (112 days) when in high mode (1-channel input, 1 picture/s)
- High-resolution (720 x 240) NTSC/(720 x 288) PAL in field recording mode and high picture quality recording and playback
- Motion-JPEG compression
- Network capability (built-in 100Base-TX Ethernet interface)
- ullet Real-time live video monitoring from all six cameras, each at a frame rate of 30 fps $^{*20}$
- Easy settings from the single-page setup menu
- Playback during recording
- Alarm recording, timer recording, programmed recording, and activity detection function
- Audio single-channel recording and playback
- Intelligent search function allows five types of searches
- Three data storage areas on HDD (normal recording, alarm recording, and archive area)
- Built-in Compact Flash™ (CF) card slot to copy images on removable media, such as a CF card or Memory Stick Duo™ using a CF card adapter
- Variable-speed picture search
- Auto delete function
- 2x digital zoom
- Video loss alarm
- Two security lock levels (User/Administer levels)
- HDD mirroring function
- 30-day backup on settings if power fails

\*20 The HSR-X206P displays these images at 25 fps



HSR-X206 Rear Panel

# **MONITORS**

# LMD-1410 NEW





- 14-inch\*21 LCD monitor
- Panel Resolution: 640 x 480 (VGA)
- Accepts NTSC and PAL
- Accepts Composite, Y/C, Component, and RGB signals
- -3% underscan and +5% overscan
- Switchable aspect ratio (4:3 and 16:9)
- On-Screen menu for adjustment/operation
- Parallel Remote Control
- Color Temperature Adjustment
- VESA mounting with 100 mm spacings
- 19-inch EIA standard rack mountable
- Monitor stand supplied
- Built-in speaker for audio monitoring
- AC 100 to 240 V, 50/60Hz

\*21 13.94-inch viewable area measured diagonally



LMD-1410 Rear

# LMD-2010 NEW





- 20-inch\*22 LCD monitor
- Panel Resolution: 640 x 480 (VGA)
- Accepts NTSC and PAL
- Accepts Composite, Y/C, Component, and RGB signals
- -3% underscan and +5% overscan
- Switchable aspect ratio (4:3 and 16:9)
- On-Screen menu for adjustment/operation
- Parallel Remote Control
- Color Temperature Adjustment
- VESA mounting with 100 mm spacings
- 19-inch EIA standard rack mountable
- Monitor stand supplied
- Built-in speaker for audio monitoring
- AC 100 to 240 V, 50/60Hz

\*22 20.1-inch viewable area measured diagonally



LMD-2010 Rear

# **SPECIFICATIONS**

	SNC-RZ30N/2	SNC-RZ30P/2	SNC-RZ25N	SNC-RZ25P
Camera				
Image device	1/6-type Super HAD CCD		1/4-type CCD with EXwave I	HAD Technology
Number of effective pixels (H x V)	630,000 (962 x 654)	740,000 (962 x 774)	380,000 (768 x 494)	440,000 (752 x 582)
Electronic shutter	Auto/Manual			<u>'</u>
Gain control	Auto/Manual			
Exposure control	Auto/Shutter-priority/Iris-priority	y/Manual/Backlight compensation		
White balance mode	Auto/Indoor/Outdoor/One push	auto/ATW/Manual		
Lens type	Auto-focus zoom lens			
Zoom ratio	25x Optical (12x Digital)		18x Optical (12x Digital)	
Horizontal viewing angle	45 to 2.0 degrees		48 to 2.7 degrees	
Focal length	f=2.4 to 60 mm		f=4.1 to 73.8 mm	
F number	F1.6 (Wide), F2.7 (Tele)		F1.4 (Wide), F3.0 (Tele)	
Pan angle	-170 to +170 degrees			
Tilt angle	-90 to +25 degrees		-90 to +30 degrees	
Other functions	Day/Night, Image Flip, Activity D	Petection, Image stabilizer	Day/Night , Image Flip, Motion	on Detection
Image				
Image size				
JPEG	736 x 480, 640 x 480, 320 x 240, 160 x 120	736 x 544, 640 x 480, 320 x 240, 160 x 120	640 x 480, 480 x 360, 384 x	x 288, 320 x 240, 256 x 192, 160 x 120
MPEG-4	_	· · · · · · · · · · · · · · · · · · ·	640 x 480, 480 x 360, 384 x	x 288, 320 x 240, 256 x 192, 160 x 120
Compression format	JPEG		JPEG/MPEG-4 (Selectable)	
Maximum frame rate			,	
JPEG	30 fps (640 x 480)	25 fps (640 x 480)	30 fps (320 x 240)	25 fps (320 x 240)
MPEG-4	_	The Control of the Co	30 fps (320 x 240)	25 fps (320 x 240)
Audio				The first of the f
Compression format	_		G.726 (40, 32, 24,16 kbps),	G.711 (64 kbps)
Network	_			
Protocols	TCP/IP, ARP, ICMP, DHCP, DNS,	HTTP, FTP, SMTP, NTP, SNMP(MIB2)	TCP/IP, UDP, ARP, ICMP, DHC RTP/RTCP, PPPoE	P, DNS, HTTP, FTP, SMTP, NTP, SNMP(MIB2),
Number of clients	50		JPEG: 20, MPEG-4: 10	
Interface				
Ethernet	100Base-TX/10Base-T (RJ-45)			
Serial interface	RS-485/RS-232C		RS-232C	
Card slot	PC card Type II x 2		Compact Flash type x 1	
Analog video output	BNC x 1, 1.0 Vp-p, 75 Ω unbal	lanced, sync negative		
I/O port	Sensor in x 3, Alarm out x 2		Sensor input x 2, Alarm outp	ut x 2
External microphone input	_		Mini-jack (monaural), 4.7 ks	2, 2.5 V plug-in power
Audio line output	-		Mini-jack (monaural), max or	utput level: 1Vrms
Analog video output				
Signal system	NTSC	PAL	NTSC	PAL
Horizontal resolution	480 TV lines			
S/N ratio	more than 48 dB		More than 50 dB	
Minimum illumination	Color: 2.5 lx (AGC ON, F1.6, 50	DIRE) B/W:0.1 lx (AGC ON, F1.6, 50IRE)	Color: 0.7 lx (AGC ON,F1.4,	50IRE) B/W: 0.06 lx (AGC ON, F1.4, 50IRE)
General				
Mass	approx. 1,200 g (2 lb 10 oz)		approx. 1,300 g (2 lb 14 oz)	
Dimensions (W x H x D)	140 x 175 x 144 mm (5 5/8 x 7	x 5 <sup>3</sup> / <sub>4</sub> inches) without projection		x 7 7/8 x 5 7/8 inches) without projection
Power requirements	DC 12 V		AC 24 V (50/60Hz), DC 12 V	
Power consumption	21.6 W max.		18 W max	
Operating temperature	0 to 40°C (32 to 104°F)			
Storage temperature	-20 to 60°C (-4 to 140°F)			
Supplied accessories				
	Wire rope, Fixing screws (+PSV	ord, Ceiling bracket (A), Ceiling bracket (B), V 3x6), Shoulder screw M4, I/O receptacle, OM (User's guide, setup program),		tracket (B), Wire rope, Tapping screw(M3x6), lied programs), Installation manual
System requirements				
Operating system	Windows 98/98SE/Me/NT4.0/2		Windows 2000/XP	
Processor	CPU: Pentium III 500 MHz or h (Pentium 4, 1GHz or higher rec		CPU: Pentium III 1 GHz or hi	gher (Pentium IV, 2 GHz or higher recommended
	(Feritianii 4, Tariz or nigner rec	.oiiiiieiided)		
Memory Web browser	RAM: 128 MB or more  Microsoft Internet Explorer® V		RAM: 256 MB or more	

# **SPECIFICATIONS**

	SNC-Z20N	SNC-Z20P	SNC-CS3N	SNC-CS3P			
Camera							
Image device	1/4-type CCD with Exwave HA	AD technology	1/3-type CCD with Exwave HA	AD technology			
Number of effective pixels (H x V)	380,000 (768 x 494)	440,000 (752 x 582)	380,000 (768 x 494)	440,000 (752 x 582)			
Electronic shutter	Auto/Manual						
Gain control	Auto/Manual						
Exposure control		ity/Manual/Backlight compensation	_				
White balance mode	Auto/ATW/Indoor/Outdoor/On		ATW				
Lens type	Auto-focus zoom lens	ie pusii/iviaituai	Vari-focal auto iris lens				
Zoom ratio	18x Optical (12x Digital)		2.7x Optical				
Horizontal viewing angle	48 to 2.7 degrees		91 to 36 degrees				
Focal length	f=4.1 to 73.8 mm		f=3.0 to 8.0 mm				
F number	F1.4 (Wide), F3.0 (Tele)		F1.0 (Wide), F1.4 (Tele)				
Other functions	Day/Night, Image Flip, Activity	Dataction	Activity Detection				
Image	Day/Night, image Filp, Activity	Detection	Activity Detection				
Image size IPEG	736 x 480, 640 x 480,	736 x 544, 640 x 480,	736 x 480, 640 x 480,	736 x 544, 640 x 480,			
JPEG	320 x 240, 160 x 120	320 x 240, 160 x 120	320 x 240, 160 x 120	320 x 240, 160 x 120			
Compression format	JPFG	320 X 2 10, 100 X 120	320 X 2 10, 100 X 120	320 X 210, 100 X 120			
Maximum frame rate	31 20						
JPEG	30 fps (640 x 480)	25 fps (640 x 480)	30 fps (640 x 480)	25 fps (640 x 480)			
Network	30 lp3 (040 X 400)	23 1p3 (040 X 400)	30 lp3 (040 x 400)	23 lp3 (040 x 400)			
Protocols	TCP/IP ARP ICMP DHCP NTP	DNS, HTTP, FTP, SMTP, SNMP (MIB2)					
Number of clients	50	(MD2)					
Interface							
Ethernet	100Base-TX/10Base-T (RJ-45)						
Serial interface	RS-232C	,					
Card slot	PC card Type II x 1						
Analog video output	BNC x 1, 1.0 Vp-p, 75 Ω, unb	palanced sync negative					
I/O port	Sensor in x 1. Alarm out x 2	valancea, syne negative					
Analog video output	Sensor in A 17 hairi dae A 2						
Signal system	NTSC	PAL	NTSC	PAL			
Horizontal resolution	480 TV lines	460 TV lines	480 TV lines	1712			
S/N ratio	More than 50 dB (AGC OFF, V	100 11 111100	1-2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1				
Minimum illumination	Color: 0.7 lx (AGC ON, F1.4, 5	<u> </u>	0.5 lx (AGC ON, F1.0, 50IRE)				
	B/W: 0.06 lx (AGC ON, F1.4,		( 1 2 11, 1 112, 2 3 112,				
General							
Mass	approx. 800 g ( 1 lb 12 oz)		approx. 650 g ( 1 lb 7 oz)				
Dimensions (W x H x D)	80 x 77 x 177 mm (3 1/4 x 3 1	1/8 x 7 inches)	70 x 57 x 199 mm (2 <sup>7</sup> / <sub>8</sub> x 2 <sup>1</sup> / <sub>2</sub>	/ <sub>4</sub> x 7 <sup>7</sup> / <sub>8</sub> inches)			
Power requirements	AC 24 V (50/60 Hz), DC 12 V,		AC 24 V (50/60Hz), DC 12 V				
Power consumption	9 W max		8 W				
Operating temperature	0 to 40°C (32 to 104°F)		-10 to 50°C (14 to 122°F)				
Storage temperature	-20 to 60°C (-4 to 140°F)		, , , , , , , , , , , , , , , , , , , ,				
Supplied accessories	, , ,						
	CD-ROM (setup program, use	r's guide), Wire rope, Shoulder screw M4,	Installation manual				
System requirements	, , , , , , , , , , , , , , , , , , , ,						
Operating system	Microsoft Windows 98/98SE/N	ME/NT4.0/2000XP					
Processor			r recommended)				
		el PentiumR III, 500 MHz or higher (Intel Pentium 4, 1 GHz or higher recommended)					
Memory	RAM: 128 MB or more						

	SNC-DF70N	SNC-DF70P	SNC-DF40N	SNC-DF40P
Camera				
Image device	1/4-type Super HAD CCD			
Number of effective pixels H x V)	380,000 (768 x 494)	440,000 (752 X 582)	380,000 (768 x 494)	440,000 (752 X 582)
Gain control	Auto/Manual	<u> </u>	,	'
Exposure control	Auto/Manual, Backlight com	pensation		
Vhite balance mode	ATW	1		
Lens type	CS-mount 2.7x Vari-focal au	ito iris lens		
Horizontal viewing angle	26.9 to 66.6 degrees			
Focal length	f=3.0 to 8.0 mm			
F number	F1.0 (Wide), F1.45 (Tele)		F1.0 (Wide), F1.4 (Tele)	
Other functions	Day/Night, Motion Detenction	on	Motion Detenction	
Image	, , , , ,			
lmage size				
JPEG	640 x 480, 480 x 360, 384	x 288, 320 x 240, 256 x 192, 160 x 120		
MPEG-4		x 288, 320 x 240, 256 x 192, 160 x 120		
Compression format	MPEG-4/JPEG(Selectable)			
Maximum frame rate	,			
JPEG	30 fps (320 x 240)	25 fps (320 x 240)	30 fps (320 x 240)	25 fps (320 x 240)
MPEG-4	30 fps (320 x 240)	25 fps (320 x 240)	30 fps (320 x 240)	25 fps (320 x 240)
Audio				
Compression format	G.711 (64 Kbps)G.726 (40,	32, 24, 16 Kbps)		
Network				
rotocols	TCP/IP, UDP, ARP, ICMP, DHC	P, DNS, HTTP, FTP, SMTP, NTP, SNMP (MIB2)	, RTP/RTCP, PPPoE	
lumber of clients	JPEG: 20, MPEG-4: 10			
Interface				
thernet	100Base-TX/10Base-T (RJ-4	5)		
Analog video output	BNC, 1.0 Vp-p, 75 Ω, unbal	anced, sync negative		
/O port	Sensor input x 1, Alarm outp	out x 2		
External microphone input	Mini-jack (monaural), 4.7 kg	Ω, 2.5 V plug-in power		
Audio line output	Mini-jack (monaural), max o	output level: 1 Vrms		
Analog video output		·		
Signal system	NTSC	PAL	NTSC	PAL
Horizontal resolution	480 TV lines		·	
5/N ratio	more than 50 dB			
Minimum illumination	Color: 0.9 lx (AGC ON, F1.0	, 50IRE), B/W: 0.2 lx (AGC ON, F1.0, 50IRE)	Color: 0.8 lx (F1.0, 50IRE, AG	ic on)
General				
Mass	approx. 1,500 g (3 lb 5 oz)		approx. 750 g (1 lb 10 oz)	
Dimensions (W x H x D)	165 x 135 x 166 mm (6 1/2	x 5 3/8 x 6 5/8 inches) without projection	124 x 132 x 126 mm (5 x 5 1	/ <sub>4</sub> x 5 inches) without projection
Power requirements	AC 24 V (50/60 Hz), DC 12	V, Power Over Ethernet		
Power consumption	8.0 W		7.5 W	
Operating temperature	-10 to +50°C (14 to 122°F)	)	'	
Storage temperature	-20 to +60°C (-4 to +140°F	F)		
Supplied accessories				
	Monitor cable, Wire rope, S CD-ROM (User's guide, supp	Screws, Dome cover screw, olied programs), Installation manual		nch, I/O extension cable, Wire rop ied programs), Installation manua
System requirements				
Operating system	Microsoft Windows 2000/XF			
Processor	CPU: Pentium III, 1 GHz or h	nigher (Pentium IV, 2 GHz or higher recomme	ended)	
Memory	RAM: 256 MB or more			
Web browser	Microsoft Internet Explorer v	version 5.5 or 6.0		

# **SPECIFICATIONS**

Network Carrieras	SNC-P5	SNC-P1
Camora	JNC-1 J.	SNC-11-
Camera	1/4 type progressive, scan CCD	
mage device	1/4 type progressive scan CCD	
Number of effective pixels H x V)	330,000 (659 x 494)	
lectronic shutter	Auto/Manual	
Gain control	Auto/Manual	
xposure control	Auto/Shutter priority/ Manual	
Vhite balance mode	ATW/Indoor/Outdoor/One push auto/Manual	
ens type	Pan focus zoom lens	Fixed focal lens
oom ratio	3x optical	_
lorizontal viewing angle	55.8 to 20 degrees	53.4 degrees,
ocal length	F2.8 (Wide), F3.9 (Tele)	f=3.8 mm
number	f3.4 to 10.2 mm	F2.0
an angle	-60 to +60 degrees	-
ilt angle	-65 to +10 degrees	_
ther functions	Motion Detection	
mage		
nage size		
JPEG	640 x 480, 320 x 240, 160 x 120	
MPEG-4	640 x 480, 320 x 240, 160 x 120	
compression format	MPEG-4, JPEG (Selectable)	
Maximum frame rate	, (science)	
JPEG JPEG	30 fps (320 x 240)	
MPEG-4	30 fps (320 x 240)	
Audio	30 lp3 (320 x 240)	
ompression format	G.711(64KBps)/G.726 (40,32,24,16KBps)	
uilt-in microphone	Electret condenser microphone (omni-directional)	
Vetwork	Electret condenser inicrophone (onlini-directional)	
rotocols	TCP/IP, UDP,ARP, ICMP, DHCP, DNS, HTTP, FTP, SMTP, NTP, SNMP(MIB2), RTP/F	DTCD DDDoE
lumber of clients	JPEG: 20. MPEG-4: 10	ricr, FFFOL
Interface	JFLG. 20, MFLG-4. 10	
thernet	100Base-TX/10Base-T (RJ-45)	
ard slot	Compact Flash type x 1	
nalog video output	Mini Jack, 1.0 Vp-p, 75 $\Omega$ , Sync negative	
	Sensor input x 2, Alarm output x 1	Cancar input v 1 Alarm autout v 1
O port xternal microphone input	Mini-jack(monaural), 2.2k ohm, 2.5V plug-in power	Sensor input x 1, Alarm output x 1
udio line output	7 1 3 1	
	Mini-jack (monaural), max output level: 1 Vrms	
Analog video output	NITCC/DAI	
ignal system	NTSC/PAL 400 TV lines	
orizontal Resolution /N ratio		
	more than 48 dB	1.2 ly (ACC ON F2.0. 20IDE)
linimum illumination	3.5 lx (AGC ON, F2.8, 30IRE)	1.2 lx (AGC ON, F2.0, 30IRE)
General	200 (42 ) (42 )	225 (0 ) (1 ) 400 (6 )
Mass	Camera: approx. 380 g (13 oz), Stand: approx. 360 g (13 oz)	Camera: approx. 225 g (8 oz), Stand: approx. 180 g (6 oz)
imensions (W x H x D)	Camera: 130 x 130 x 110 mm (5 1/8 x 5 1/8 x 4 3/8 inches) without projection Stand: 130 x 178 x 142 mm (5 1/8 x 7 1/8 x 5 5/8 inches)	Camera: $100 \times 36 \times 139$ mm (4 x 1 $^{7}$ /16 x 5 $^{1}$ /2 inches) without projection Stand: $120 \times 142 \times 150$ mm (4 $^{3}$ /4 x 5 $^{5}$ /8 x 6 inches)
ower requirements	DC12 V	
ower consumption	6.2 W max	3.5 W
perating temperature	0 to +35°C (32 to 95°F)	
torage temperature	-20 to +60°C (-4 to +140°F)	
Supplied accessories		
	AC power adaptor, AC Power cord, Stand, Wall-mount bracket, Rubber foot, Drop-prevention strap, Tapping screws, CD-ROM (user's guide, supplied programs), Installation manual	AC power adaptor, AC power cord, Stand, Wall-mount bracket, Rubber foot, Drop-prevention strap, Tapping screws, CD-ROM (user's guide, supplied programs), Installation manual
System requirements		
perating system	Windows2000/ XP	
rocessor	CPU: Pentium III 1 GHz or higher (Pentium IV, 2GHz or higher recommended	
Memory	RAM: 256 MB or more	

	SNC-M3	SNC-M3W	SNC-M1	SNC-M1W
Camera				
Image device	1/4-type CMOS			
Number of effective pixels	310.000 (652 x 482)			
(H x V)	5.0,000 (032 x 102)			
Electronic shutter	Auto			
Gain control	Auto			
Exposure control	Auto			
White balance mode	ATW			
Lens type	Fixed focal lens			
Zoom ratio	-			
Horizontal viewing angle	51.0 degrees			
Focal length	f=3.7 mm			
F number	F2.0			
Pan angle	+60 to -60 degrees		_	
Tilt angle	+10 to -60 degrees		_	
Minimum illumination	4.5 lx (AGC ON, F2.0, 30IRE)			
Other functions	Motion Detection			
Image				
Image size				
JPEG	640 x 480, 320 x 240, 160 x 120			
MPEG-4	640 x 480, 320 x 240, 160 x 120			
Compression format	MPEG-4/JPEG (Selectable)			
Maximum frame rate	III 20 III 20 (Selectable)			
JPEG	30 fps (320 x 240)			
MPEG-4	30 fps (320 x 240)			
Audio	30 1p3 (320 X 2 10)			
Compression format	G.726 (40, 32, 24, 16 Kbps)			
Built-in microphone	Electret condenser microphone (Omni-	-directional)		
Network	Electric condenser interophone (online	uncetonaly		
Protocols	TCP/IP, ARP, ICMP, DHCP, DNS, HTTP,	FTP SMTP NTP		
Number of clients	10	111, 310111, 1011		
Wireless LAN	10			
Standard	_	IEEE802.11b (2.4 GHz)		IEEE802.11b (2.4 GHz)
Transmission speed	_	11 Mbps/5.5 Mbps/2 Mbps/	_	11 Mbps/5.5 Mbps/2 Mbps/
nansinission speed		1 Mbps (Auto Switch)		1 Mbps (Auto Switch)
Security	_	WEP (64/128 bits)	_	WEP (64/128 bits)
Interface		1121 (2 11 122 2112)		(2.11.12.2.112)
Ethernet	100Base-TX/10Base-T (RJ-45)			
External microphone input	Mini-jack (monoral), 2.2 kΩ, 2.5 V p	lua-in power		
Audio line output	Mini-jack (monaural), Max output lev			
General	man jack (menadran) man earpar ie			
Mass	Camera: approx. 350 g (12 oz) Stand: approx. 80 g (3 oz)	Camera: approx. 380 g (13 oz) Stand: approx. 80 g (3 oz)	Camera: approx. 250 g (9 oz) Stand: approx. 80 g (3 oz)	Camera: approx. 280 g (10 oz) Stand: approx. 80 g (3 oz)
Dimensions (W x H x D)	Camera: 110 x 104 mm (WxD) (4 <sup>3</sup> / <sub>8</sub> Stand: 102 x 94 x 142 mm (4 <sup>1</sup> / <sub>8</sub> x 3	x 4 1/8 inches) without projection	Camera: 110 x 69 mm (DxH) (4 <sup>3</sup> / <sub>8</sub> x Stand: 102 x 94 x 142 mm (4 <sup>1</sup> / <sub>8</sub> x 3	2 <sup>3</sup> / <sub>4</sub> inches) without projection
Power requirements	DC 5 V		1	
Power consumption	5.5 W	8.2 W	2.9 W	5.2 W
Operating temperature	0 to +40°C (32 to 104°F)	0.2 **	2.5 **	3.2 **
Storage temperature	-20 to +60°C (-4 to +140°F)			
Supplied accessories	-20 to +00 C (-4 to +140 1)			
Supplied accessories	AC power adaptor, AC power cord, S Installation manual * For M3/M3W only: Wall-mount holder, W		rap, Tapping screws (4x20),CD-ROM (user's	guide, supplied programs),
System requirements				
Operating system	Microsoft Windows 2000/XP			
Processor		entium IV, 2 GHz or higher recommend	led)	
Memory	RAM : 256 MB or more			
Web browser	Microsoft Internet Explorer version 5	.5 or 6.0		
	·			

# **SPECIFICATIONS**

# **Analog Cameras**

	SSC-E473	SSC-E473P	SSC-E478P	SSC-E453	SSC-E453P	SSC-E458P
Camera						
Image device	1/3-type CCD with Super	Exwave technology		1/3-type CCD with Super	Exwave technology	
Number of effective pixels (H x V)	370,000 (768 x 494)	430,000 (752 x 582)		370,000 (768 x 494)	430,000 (752 x 582)	
Auto Gain Control	TURBO/OFF switchable					
White balance mode	ATW pro/ATW					
Lens type	CS-mount, DC servo auto	iric				
CCD iris	ON/OFF switchable, 1/60 to 1/100,000 s	ON/OFF switchable, 1/50	to 1/100,000 s	ON/OFF switchable, 1/60 to 1/100,000 s	ON/OFF switchable, 1/50	to 1/100,000 s
Back-Light Compensation (BLC)	ON/OFF switchable	'				
Day/Night function	Auto/External			_		
Analog video output	BNC x 1, 1.0 Vp-p, 75 Ω	, Sync negative				
Signal system	NTSC	PAL		NTSC	PAL	
Sync system	Internal/AC Line lock		AC Line lock	Internal/AC Line lock	•	AC Line lock
Horizontal Resolution	540 TV lines		'			
S/N ratio	More than 50 dB (AGC C	FF, WEIGHT ON)				
Minimum illumination	Color: 0.55 lx (50IRE, F1. B&W: 0.05 lx (50IRE, F1.	2, Turbo AGC ON), 2, Turbo AGC ON)		0.55 lx (50IRE, F1.2, AGO	ON, Turbo mode)	
General						
Mass	approx. 380 g (13 oz), approx. 460 g (1 lb 1 oz) including front and rear o		approx. 400 g (14 oz), approx. 480 g (1 lb 8 oz)* including front and rear covers	approx. 360 g (12 oz), approx. 440 g (15 oz)* including front and rear o	covers	approx. 390 g (13 oz), approx. 470 g (1 lb)* including front and rear covers
Dimensions (W x H x D)	60 x 53 x 124 mm (2 3/8 60 x 53 x 246 mm (2 3/8 including front and rear	x 2 1/8 x 9 3/4 inches)*		60 x 53 x 118 mm (2 3/8 60 x 53 x 240 mm (2 3/8 including front and rear	x 2 1/8 x 9 1/2 inches)*	
Power requirements	AC 24 V ±10%, 60 Hz or DC 12 V ±10%	AC 24 V ±10%, 50 Hz or DC 12 V ±10%	AC 220 to 240 V ±10%, 50 Hz	AC 24 V ±10%, 60 Hz or DC 12 V ±10%	AC 24 V ±10%, 50 Hz or DC 12 V ±10%	AC 220 to 240 V ±10% 50 Hz
Power consumption	4.0 W			3.5 W		
Operating temperature	-10 to 50°C (14 to 122°	F)				
Storage temperature	-40 to 60°C (-40 to 140°	°F)				
Supplied accessories						
	Lens mount cap, Operatir Front cover, Rear cover, S		Lens mount cap, Operating instructions, Front cover, Rear cover, Screws (2). Power cable	Lens mount cap, Operatin Front cover, Rear cover, S		Lens mount cap, Operating instructions, Front cover, Rear cover, Screws (2). Power cable

	SSC-DC80	SSC-DC80P	SSC-DC83	SSC-DC83P	SSC-DC88P				
Camera									
Image device	1/2-type CCD with Exwave H.	AD technology							
Number of effective pixels (H x V)	370,000 (768 x 494)	430,000 (752 x 582)	370,000 (768 x 494)	430,000 (752 x 582)					
Auto Gain Control	Turbo/Normal/Manual/Off	rbo/Normal/Manual/Off							
White balance mode	ATW-pro/ATW/3200K/5600K/I								
Lens type	CS/C*-mount (* C-mount ada	ptor is supplied), DC/Video se	vo auto iris						
CCD iris	ON/OFF switchable, 1/60 to 1/100.000 s	ON/OFF switchable, 1/50 to 1/100,000 s	ON/OFF switchable, 1/60 to 1/100.000 s	ON/OFF switchable, 1/50 to	1/100,000 s				
Back-Light Compensation (BLC)	SPOT/WEIGHT/OFF switchable			•					
Analog video output	BNC x 1, 1.0 Vp-p, 75 Ω, Syno	negative, S-Video x 1							
Signal system	NTSC	PAL	NTSC	PAL					
Sync system	Internal/VS/VD		Internal/AC Line lock/VS	•					
Horizontal Resolution	480 TV lines								
S/N ratio	More than 57 dB (AGC OFF, W	/EIGHT ON)							
Minimum illumination	0.4 lx (50IRE, F1.2, Turbo AGC	ON)							
General									
Mass	approx. 560 g (1.4 oz)		approx. 550 g (1.3 oz)		approx. 600 g (1.5 oz)				
Dimensions (W x H x D)	70 x 57 x 260 mm (2 7/8 x 2 1	/4 x 20 1/4 inches) (including fr	ont and rear covers)						
Power requirements	Multiplexing with the YS-W170A/W270A, or DC 12 V $\pm$ 10 %	Multiplexing with the YS-W170P/W270P, or DC 12 V $\pm$ 10 %	AC 24 V ±10 %, 60 Hz or DC 12 V ±10 %	AC 24 V ±10 %, 50 Hz or DC 12 V ±10 %	AC 220 to 240 V ±10 %, 50 Hz				
Power consumption	4.6 W		4.4 W	•	4.2 W				
Operating temperature	-10 to 50°C (14 to 122°F)		·						
Storage temperature	-40 to 60°C (-40 to 140°F)								
Supplied accessories									
	Lens mount cap, Operating ins	structions, Front cover, Rear co	ver, Screws (2), C-mount adaptor		Lens mount cap, Operating instructions, Front cover, Re cover, Screws (2), Power cab				

# **Analog Cameras**

	SSC-DC590	SSC-DC593	SSC-DC593P	SSC-DC598P			
Camera							
Image device	1/3-type CCD with DynaView	technology					
Number of effective pixels (H x V)	370,000 (768 x 494)	<del>.</del>	430,000 (752 x 582)				
Auto Gain Control	NORMAL/TURBO/MANUAL/O	FF selectable	·				
White balance mode	ATW pro/ATW/3200K/5600K/	MANUAL/DUAL WB selectable					
Lens type	CS-mount, DC/Video servo au	to iris					
CCD iris	ON/OFF switchable, 1/60 to 1	OFF switchable, 1/60 to 1/100,000 s ON/OFF switchable, 1/50 to 1/100,000 s					
Back-Light Compensation (BLC)	DYNAVIEW/SPOT/WEIGHT/OF	F selectable	·				
Day/Night function	Auto/External/Color/B&W sele	ectable					
Analog video output	BNC x 1, 1.0 Vp-p, 75 Ω, Syn	c negative					
Signal system	NTSC		PAL				
Sync system	Internal/VS/VD	Internal/AC Line lock	•				
Horizontal Resolution	480 TV lines						
S/N ratio	More than 50 dB (AGC OFF, V	VEIGHT ON)					
Minimum illumination	Color: 0.8 lx (50IRE, F1.4, Tur	bo AGC ON), B&W: 0.07 lx (50IRE, F1.4,Tu	rbo AGC ON)				
General							
Mass	approx. 500 g (1 lb 2 oz)						
Dimensions (W x H x D)	70 x 57 x 129 mm (2 7/8 x 2	1/4 x 5 1/8 inches)					
Power requirements	Multiplexing with the YS-W170A/W270A or DC 12 V ±10%	AC 24 V ±10%, 60 Hz or DC 12 V ±10%	AC 24 V ±10%, 50 Hz or DC 12 V ±10%	AC 220 to 240 V ±10%, 50 Hz			
Power consumption	5.8 W			5.6 W			
Operating temperature	-10 to 50°C (14 to 122°F)						
Storage temperature	-40 to 60°C (-40 to 140°F)						
Supplied accessories							
	Lens mount cap, Operating in	structions, Menu operations		Lens mount cap, Operating instructions, Menu operations, AC power cable			

	SSC-DC573	SSC-DC573P	SSC-DC578P
Camera			
Image device	1/3-type CCD with DynaView technology		
Number of effective pixels	370,000 (768 x 494)	430,000 (752 x 582)	
(H x V)			
Auto Gain Control	NORMAL/TURBO/MANUAL/OFF selectable		
White balance mode	ATW pro/ATW/3200K/5600K/MANUAL/DUAL WB s	electable	
Lens type	CS-mount, DC/Video auto iris		
CCD iris	ON/OFF switchable, 1/60 to 1/100,000 s	ON/OFF switchable, 1/50 to 1/100,000 s	
Back-Light Compensation (BLC)	DYNAVIEW/SPOT/WEIGHT/OFF selectable		
Day/Night function	-		
Analog video output	BNC x 1, 1.0 Vp-p, 75 Ω, Sync negative		
Signal system	NTSC	PAL	
Sync system	Internal/AC Line lock		
Horizontal Resolution	480 TV lines		
S/N ratio	More than 50 dB (AGC OFF, WEIGHT ON)		
Minimum illumination	0.8 lx (50IRE, F1.4, Turbo AGC ON)		
General			
Mass	approx. 480 g (1 lb 1 oz)		
Dimensions (W x H x D)	70 x 57 x 129 mm (2 7/8 x 2 1/4 x 5 1/8 inches)		
Power requirements	AC 24 V ±10%, 60 Hz or DC 12 V ±10%	AC 24 V ±10%, 50 Hz or DC 12 V ±10%	AC 220 to 240 V ±10%, 50 Hz
Power consumption	4 W		·
Operating temperature	-10 to 50°C (14 to 122°F)		
Storage temperature	-40 to 60°C (-40 to 140°F)		
Supplied accessories			
	Lens mount cap, Operating instructions, Menu operat	ions	Lens mount cap, Operating instructions, Menu operations, AC power cable

# **SPECIFICATIONS**

# **Analog Color Cameras**

	SSC-DC374	SSC-DC372P	SSC-DC378P
Camera			
Image device	1/3-type Super HAD CCD		
Number of effective pixels	370,000 (768 x 494)	430,000 (752 x 582)	
(H x V)			
Auto Gain Control	TURBO/OFF switchable		
White balance mode	ATW		
Lens type	CS-mount, DC servo auto iris		
CCD iris	ON/OFF switchable, 1/60 to 1/100,000 s	ON/OFF switchable, 1/50 to 1/100,000 s	
Back-Light Compensation (BLC)	ON/OFF switchable		
Analog video output	BNC x 1, 1.0 Vp-p, 75 Ω, Sync negative		
Signal system	NTSC	PAL	
Sync system	AC Line lock	Internal	AC Line lock
Horizontal Resolution	480 TV lines		
S/N ratio	More than 50 dB (AGC OFF, WEIGHT ON)		
Minimum illumination	0.8 lx (50IRE, F1.2, Turbo AGC ON)		
General			
Mass	approx. 355 g (13 oz)		approx. 385 g (14 oz)
Dimensions (W x H x D)	60 x 54 x 120 mm (2 3/8 x 2 1/4 x 4 3/4 inches)		,
Power requirements	AC 24 V ±10%, 60 Hz	DC 12 V ±10 %	AC 220 to 240 V ±10%, 50 Hz
Power consumption	3.6 W	3.2 W	4.0 W
Operating temperature	-10 to 50°C (14 to 122°F)		'
Storage temperature	-40 to 60°C (-40 to 140°F)		
Supplied accessories			
	Lens mount cap, Operating instructions		Lens mount cap, Operating instructions, AC power cable

	SSC-DC193	SSC-DC193P	SSC-DC198P	SSC-DC174	SSC-DC172P		
Camera							
Image device	1/3-type Super HAD CCD	-type Super HAD CCD					
Number of effective pixels (H x V)	250,000 (510 x 492)	290,000 (500 x 582)		250,000 (510 x 492)	290,000 (500 x 582)		
Auto Gain Control	TURBO/OFF switchable						
White balance mode	ATW						
Lens type	CS-mount, DC/Video servo aut	o iris		CS-mount, DC/Video servo aut	to iris		
CCD iris	TURBO/OFF switchable, 1/60 to 1/100,000 s	ON/OFF switchable, 1/50 to 1	/100,000 s	ON/OFF switchable, 1/60 to 1/100,000 s	ON/OFF switchable, 1/50 to 1/100,000 s		
Back-Light Compensation (BLC)	ON/OFF switchable						
Analog video output	BNC x 1, 1.0 Vp-p, 75 Ω, Syno	negative					
Signal system	NTSC	PAL		NTSC	PAL		
Sync system	Internal/AC Line lock		AC Line lock	Internal/AC Line lock	Internal		
Horizontal Resolution	330 TV lines						
S/N ratio	More than 50 dB (AGC OFF, W	/EIGHT ON)					
Minimum illumination	0.6 lx (50IRE, F1.2, Turbo AGC	ON)					
General							
Mass	approx. 360 g (13 oz)		approx. 390 g (14 oz)	approx. 355 g (12 oz)			
Dimensions (W x H x D)	60 x 54 x 120 mm (2 3/8 x 2 1	/ <sub>4</sub> x 4 <sup>3</sup> / <sub>4</sub> inches)		60 x 54 x 120 mm (2 3/8 x 2 1/4 x 4 3/4 inches)			
Power requirements	AC 24 V ±10%, 60 Hz or DC 12 V ±10 %	AC 24 V ±10%, 50 Hz or DC 12 V ±10 %	AC 220 to 240 V ±10%, 50 Hz	AC 24 V ±10%, 60 Hz	DC 12 V ±10%		
Power consumption	3.5 W	•	3.7 W	3.4 W			
Operating temperature	-10 to 50°C (14 to 122°F)			•			
Storage temperature	-40 to 60°C (-40 to 140°F)						
Supplied accessories							
	Lens mount cap, Operating ins	tructions		Lens mount cap, Operating instructions, AC power cable	Lens mount cap, Operating instructions		

# Analog Cameras (B/W)

	SSC-M383	SSC-M383CE	SSC-M388CE	SSC-M183	SSC-M183CE	SSC-M188CE
Camera						
Image device	1/3-type CCD with Exwa	1/3-type CCD with Exwave HAD technology				
Number of effective pixels (H x V)	370,000 (768 x 494)	430,000 (752 x 582)		250,000 (510 x 492)	291,000 (500 x 582)	
Auto Gain Control	TURBO/OFF switchable					
White balance mode	ATW					
Lens type	CS-mount, DC/Video serv	o auto iris				
CCD iris	ON/OFF switchable, 1/60 to 1/100,000 s			ON/OFF switchable, 1/60 to 1/100,000 s	ON/OFF switchable, 1/50 to 1/100,000 s	
Back-Light Compensation (BLC)	ON/OFF switchable				•	
Analog video output	BNC x 1, 1.0 Vp-p, 75 Ω, Sync negative					
Signal system	EIA	CCIR EIA		EIA	CCIR	
Sync system	Internal/AC Line lock	Internal/AC Line lock AC Line lock		Internal/AC Line lock		AC Line lock
Horizontal Resolution	570 TV lines		380 TV lines			
S/N ratio	More than 50 dB (AGC OFF, WEIGHT ON)					
Minimum illumination	0.07 lx (50IRE, F1.2, Turbo AGC ON)		0.06 lx (50IRE, F1.2, Turbo AGC ON)			
General						
Mass	approx. 360 g (13 oz) appro		approx. 390 g (14 oz)	approx. 360 g (13 oz)	pprox. 360 g (13 oz) approx. 390 g (14	
Dimensions (W x H x D)	60 x 54 x 120 mm (2 <sup>3</sup> / <sub>8</sub> x 2 <sup>1</sup> / <sub>4</sub> x 4 <sup>3</sup> / <sub>4</sub> inches)					
Power requirements	AC 24 V ±10%, 60 Hz or DC 12 V ±10%	AC 24 V ±10%, 50 Hz or DC 12 V ±10 %	AC 220 to 240 V ±10 %, 50 Hz	AC 24 V $\pm$ 10%, 60 Hz or DC 12 V $\pm$ 10%	AC 24 V $\pm 10\%$ , 50 Hz or DC 12 V $\pm 10\%$	AC 220 to 240 V ±10 % 50 Hz
Power consumption	2.6 W 2.5 W					
Operating temperature	-10 to 50°C (14 to 122°F)					
Storage temperature	-40 to 60°C (-40 to 140°F)					
Supplied accessories						
	Lens mount cap, Operating instructions		Lens mount cap, Operating instructions, AC power cable	Opera		Lens mount cap, Operating instructions, AC power cable

# **Analog Cameras**

	SSC-CD73V	SSC-CD73VP	SS-CD73VT	SSC-CD43V	SSC-CD43VP	SSC-CD43VT
Camera						
Image device	1/4-type Super HAD CCI	)				
Number of effective pixels (H x V)	370,000 (768 x 494)	430,000 (752 x 582)	370,000 (768 x 494)		430,000 (752 x 582)	370,000 (768 x 494)
Auto Gain Control	TURBO/OFF switchable					
White balance mode	ATW					
Lens type	Vari-focal lens, CS-moun	t, DC servo auto iris				
Focal length	f=3.0 to 8.0 mm					
View angle	W=84.6°(D), 66.6°(H), 49.3°(V) T=33.8°(D), 27°(H), 20.2°(V)		W=84.7°(D), 66.6°(H), 49.3°(V) T=33.6°(D), 26.9°(H), 20.1°(V)			
CCD iris	ON/OFF switchable, 1/60 to 1/100,000 s	ON/OFF switchable, 1/50 to 1/100,000 s	ON/OFF switchable, 1/60	to 1/100,000 s	ON/OFF switchable, 1/50 to 1/100,000 s	ON/OFF switchable, 1/60 to 1/100,000 s
Minimum object distance	0.2 m					
Back-Light Compensation (BLC)	ON/OFF switchable					
Analog video output	BNC x 1, 1.0 Vp-p, 75 Ω	, Sync negative	UTP x 1, 1.0 Vp-p, 100 $\Omega$ , Sync negative	BNC x 1, 1.0 Vp-p, 75 Ω	, Sync negative	UTP x 1, 1.0 Vp-p, 100 $\Omega$ , Sync negative
Signal system	NTSC	PAL	NTSC		PAL	NTSC
Sync system	Internal/AC Line lock					
Horizontal Resolution	480 TV lines		_	480 TV lines		-
S/N ratio	More than 50 dB (AGC (	OFF, WEIGHT ON)				
Minimum illumination	Color: 0.9 lx (50IRE, F1.0, AGC ON), B&W: 0.2 lx (50IRE, F1.0, AGC ON)		Color: 0.8 lx (50IRE, F1.0, AGC ON)			
General						
Mass	approx. 1,150 g (2 lb 10 oz)		approx. 440 g (16 oz)			
Dimensions (W x H x D)	147 x 111 x 148 mm (5	7/8 x 4 <sup>3</sup> /8 x 5 <sup>7</sup> /8 inches)		121 x 107 x 123 mm (4	7/8 x 4 1/4 x 4 7/8 inches)	
Power requirements	AC 24 V $\pm$ 10%, 60 Hz or DC 12 V $\pm$ 10%	AC 24 V ±10%, 50 Hz or 12 V ±10%	AC 24 V ±10%, 60 Hz or	DC 12 V ±10%	AC 24 V ±10%, 50 Hz or 12 V ±10%	AC 24 V ±10%, 60 Hz o 12 V ±10%
Power consumption	3.6 W			3.3 W		
Operating temperature	-20 to 50°C (-4 to 122°F)					
Storage temperature	-40 to 60°C (-40 to 140	°F)				
Supplied accessories						
	Screw TP4 x 30 (4), Mon External control terminal	itor cable, Screwdriver, connector, Operating Instru	ctions	Screw TP4 x 30 (2), Dom	e cover screw, Monitor cab	le, Operating Instructions

# **SPECIFICATIONS**

# Camera Adaptors

	YS-W270A	YS-W270P	YS-W170A	YS-W170P		
Video output	BNC(8), composite video		BNC(2), composite video	BNC(2), composite video		
Signal system	NTSC	PAL	NTSC	PAL		
Video input	Camera in, BNC(4)		Camera in, BNC(1)	Camera in, BNC(1)		
External sync	VS or VD-W	VS or VD-W				
Internal sync	MPX-VS or MPX-VD-W	MPX-VS or MPX-VD-W				
Max. cable length	500 m (1640 ft) using RG-6A	300 m (984 ft) using RG-59B/U 500 m (1640 ft) using RG-6A/U 600 m (1968 ft) using RG-11A/U				
Cable compensation	3 positions					
Power requirements	AC 120 V, 60 Hz	AC 220 to 240 V, 50 Hz	AC 120 V, 60 Hz	AC 220 to 240 V, 50 Hz		
Power consumption	92 W	49.5 W	27 W	15 W		
Operating temperature	-10 to 50°C (14 to 122°F)	-10 to 50°C (14 to 122°F)				
Mass	3.8 kg (8 lb 6 oz)	3.8 kg (8 lb 6 oz)		1.9 kg (4 lb 3 oz)		
Dimensions (W x H x D)	424 x 52 x 345 mm (16 3/4 x	424 x 52 x 345 mm (16 <sup>3</sup> / <sub>4</sub> x 2 <sup>1</sup> / <sub>8</sub> x 13 <sup>5</sup> / <sub>8</sub> inches)		212 x 52 x 345 mm (8 8/3 x 2 1/8 x 13 5/8 inches)		

# Systems and Software

XIS-10DC  1/6-type Interline Transfer Super HAD CCD 630,000 pixels 1 to 1/10,000 s Auto/Manual Auto-focus zoom lens x25 optical zoom Horizontal: 2.0 to 45 degrees f=2.4 to 60 mm F1.6 (wide), F2.7 (tele) Auto/Manual (F1.6 to close) -170 to +170 degrees -17 to +38 degrees (effective)*1 Day/Night, Image stabilizer, Position preset JPEG approx. 1/5 to 1/60 (10 steps) 10 fps (640 x 480) 48 dB 2.5 k (50IRE, F1.6: AE mode, slow shutter off)
630,000 pixels 1 to 1/10,000 s Auto/Manual Auto-focus zoom lens x25 optical zoom Horizontal: 2.0 to 45 degrees f=2.4 to 60 mm F1.6 (wide), F2.7 (tele) Auto/Manual (F1.6 to close) -170 to +170 degrees -17 to +38 degrees (effective)*1 Day/Night, Image stabilizer, Position preset JPEG approx. 1/5 to 1/60 (10 steps) 10 fps (640 x 480) 48 dB
630,000 pixels 1 to 1/10,000 s Auto/Manual Auto-focus zoom lens x25 optical zoom Horizontal: 2.0 to 45 degrees f=2.4 to 60 mm F1.6 (wide), F2.7 (tele) Auto/Manual (F1.6 to close) -170 to +170 degrees -17 to +38 degrees (effective)*1 Day/Night, Image stabilizer, Position preset JPEG approx. 1/5 to 1/60 (10 steps) 10 fps (640 x 480) 48 dB
1 to 1/10,000 s Auto/Manual Auto-focus zoom lens x25 optical zoom Horizontal: 2.0 to 45 degrees f=2.4 to 60 mm F1.6 (wide), F2.7 (tele) Auto/Manual (F1.6 to close) -170 to +170 degrees -17 to +38 degrees (effective)*1 Day/Night, Image stabilizer, Position preset JPEG approx. 1/5 to 1/60 (10 steps) 10 fps (640 x 480) 48 dB
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Auto-focus zoom lens x25 optical zoom Horizontal: 2.0 to 45 degrees f=2.4 to 60 mm F1.6 (wide), F2.7 (tele) Auto/Manual (F1.6 to close) -170 to +170 degrees -17 to +38 degrees (effective)*1 Day/Night, Image stabilizer, Position preset JPEG approx. 1/5 to 1/60 (10 steps) 10 fps (640 x 480) 48 dB
x25 optical zoom  Horizontal: 2.0 to 45 degrees  f=2.4 to 60 mm  F1.6 (wide), F2.7 (tele)  Auto/Manual (F1.6 to close)  -170 to +170 degrees  -17 to +38 degrees (effective)*1  Day/Night, Image stabilizer, Position preset  JPEG approx. 1/5 to 1/60 (10 steps)  10 fps (640 x 480)  48 dB
Horizontal: 2.0 to 45 degrees  f=2.4 to 60 mm  F1.6 (wide), F2.7 (tele)  Auto/Manual (F1.6 to close) -170 to +170 degrees -17 to +38 degrees (effective)*1  Day/Night, Image stabilizer, Position preset  JPEG approx. 1/5 to 1/60 (10 steps)  10 fps (640 x 480)  48 dB
f=2.4 to 60 mm F1.6 (wide), F2.7 (tele) Auto/Manual (F1.6 to close) -170 to +170 degrees -17 to +38 degrees (effective)*1 Day/Night, Image stabilizer, Position preset JPEG approx. 1/5 to 1/60 (10 steps) 10 fps (640 x 480) 48 dB
F1.6 (wide), F2.7 (tele) Auto/Manual (F1.6 to close) -170 to +170 degrees -17 to +38 degrees (effective)*1 Day/Night, Image stabilizer, Position preset JPEG approx. 1/5 to 1/60 (10 steps) 10 fps (640 x 480) 48 dB
Auto/Manual (F1.6 to close) -170 to +170 degrees -17 to +38 degrees (effective)*1 Day/Night, Image stabilizer, Position preset JPEG approx. 1/5 to 1/60 (10 steps) 10 fps (640 x 480) 48 dB
-170 to +170 degrees -17 to +38 degrees (effective)*1  Day/Night, Image stabilizer, Position preset  JPEG approx. 1/5 to 1/60 (10 steps)  10 fps (640 x 480)  48 dB
-17 to +38 degrees (effective)*1  Day/Night, Image stabilizer, Position preset  JPEG  approx. 1/5 to 1/60 (10 steps)  10 fps (640 x 480)  48 dB
Day/Night, Image stabilizer, Position preset  JPEG approx. 1/5 to 1/60 (10 steps)  10 fps (640 x 480)  48 dB
JPEG approx. 1/5 to 1/60 (10 steps)  10 fps (640 x 480)  48 dB
approx. 1/5 to 1/60 (10 steps) 10 fps (640 x 480) 48 dB
10 fps (640 x 480) 48 dB
48 dB
2.5 lx (50IRE, F1.6: AE mode, slow shutter off)
Elevation: 17 degrees Depression: 38 degrees
1,340,000 pixels
7.5 fps
tware)
Windows XP Professional
CPU: Pentium IV 3 GHz or higher
RAM: 1 GB or more
100 GB required, 500 GB recommended
1024 x 768 or greater
100 Mb/s or more
Full-color display
RJ-45 (100Base-TX/10Base-T)
12 kg (26 lb 7 oz)
17.8 kg (39 lb 4 oz)
347 x 540 x 347 mm (13 <sup>3</sup> / <sub>4</sub> x 21 <sup>3</sup> / <sub>8</sub> x 13 <sup>3</sup> / <sub>4</sub> inches)
347 x 540 x 736 mm (13 <sup>3</sup> / <sub>4</sub> x 21 <sup>3</sup> / <sub>8</sub> x 29 inches)
12 V DC
140 W
-10 to 40°C (14 to 104°F), when air conditioning system is on
-20 to 60°C (-4 to 140°F)
20 to 90%, Non-condensing, when air conditioning systems is on
20 to 95%, Non-condensing
IEC529 (IP66 rated)
I read to the second

<sup>\*1</sup> Tilt range is limited by application software.

# Systems and Software

	IMZ-RS300 Series			
Intelligent Monitoring Softv	vare			
Operating system*	Windows 2000, Windows XP or Windows 2003 Server			
Processor	CPU: Pentium IV 2.4 GHz or higher			
Memory	RAM: 512 MB or more			
HDD	2 GB spare capacity			
Video Card	1024 x 768, 16/24-bit color			
Network Interface Card (NIC)	100Base-T			
Display	Full-color display			
Web Gateway				
Operating system	Windows 2000 or Windows XP			
Java Runtime**	Java Runtime Environment 1.4.2			
Web Application Server**	Apache Tomcat 5.0.18			
Web Browser	Internet Explorer Version 6.0 or later			
Processor	CPU: Pentium IV 2.4 GHz or higher			
Memory	RAM: 512 MB or more			
HDD	500 MB spare capacity			
Video Card	1024 x 768, 16/24-bit color			
Network Interface Card (NIC)	100Base-T			
Compression Server				
Operating system	Windows 2000 or Windows XP			
Processor	CPU: Pentium IV 2.4 GHz or higher			
Memory	RAM: 512 MB or more			
HDD	500 MB spare capacity			
Video Card	1024 x 768, 16/24-bit color			
Network Interface Card (NIC)	100Base-T			
Intelligent Monitoring Software Web Viewer				
Operating system	Windows 2000 or Windows XP			
Java Runtime***	Java Runtime Environment 1.4.2			
Web Browser	Internet Explorer Version 6.0 or Later			
Processor	CPU: Celeron 2.0 GHz or higher			
Memory	RAM: 512 MB or more			
HDD	500 MB spare capacity			
Video Card	1024 x 768, 16/24-bit color			
Network Interface Card (NIC)	100Base-T			

# Video Network Station

	SNT-V504	SNT-V501			
Analog Video Interface					
Video input	Analog composite (BNC x 4), 1.0 Vp-p, 76 $\Omega$ , unbalanced, sync negative. Auto sensing for NTSC or PAL	Analog composite (BNC x 1), 1.0 Vp-p, 75 $\Omega$ , unbalanced, sync negative. Auto sensing for NTSC or PAL			
Video output	Analog composite (BNC x 1), 1.0 Vp-p, 76 $\Omega$ , unbalanced, sync negative (QUAD/Single selectable)	Through video output: Analog composite (BNC x 1), 1.0 Vp-p, 75 $\Omega$ , unbalanced, sync negative			
System/Network					
СРИ	32-bit RISC processor				
RAM	32 MB (including 8 MB alarm buffer)				
Flash memory	8 MB				
Image size					
NTSC	704 x 480, 640 x 480, 320 x 240, 160 x 120				
PAL	704 x 544, 640 x 480, 320 x 240, 160 x 120				
Compression method	JPEG				
Compression ratio	Approx. 1/5 to 1/60 (10 steps)*				
Frame rate					
NTSC	Max. 30 fps (640 x 480)				
PAL	Max. 25 fps (640 x 480)				
Protocols	TCP/IP, ARP, ICMP, HTTP, FTP (client/server), SMTP, DHCP, DNS, NTP, SNMP (MIB-2)				
Number of clients	Maximum of 50				
Interface	1400D TV(40D T (D) 45)				
Ethernet	100Base-TX/10Base-T (RJ-45)	Lance			
Sensor input	(4) 3.3 to 24 V DC devices supported, photo coupler inputs electrically isolated from this unit	(1) 3.3 to 24 V DC device supported, photo coupler inputs electrically isolated from this unit			
Alarm output	(2) 24 V DC or less, 1 A, mechanical relay outputs electrically isolated from the	camera			
Serial interface	RS-485/RS-232C (for camera control or transparency function)				
PC card slot	PC card Type II x 2				
General					
Mass	Approx. 710 g (1 lb 9 oz)	Approx. 650 g (1 lb 7 oz)			
Dimensions (W x H x D)	128 x 40 x 150 mm (5 1/8 x 1 5/8 x 6 inches)				
Power requirements	DC 12V or AC 24 V				
Power consumption	14.0 W max. 10.0 W max.				
Operating temperature	-10 to 50°C (14 to 122°F) When PC card is attached: -10 to 40°C (14 to 104°F)				
Storage temperature	-20 to 60°C (-4 to 140°F)				
Operating humidity	20 to 80%, Non-condensing				
Storage humidity	20 to 95%, Non-condensing				
Supplied accessories	<u> </u>				
	CD-ROM (setup program and User's Guide) (1), I/O receptacle (1), Installation	manual (1)			
* The compression ratio is based on an	image of 24 hits/picture element (8 hits each for R. G. and R)				

 $<sup>^{\</sup>star}$  The compression ratio is based on an image of 24 bits/picture element (8 bits each for R, G, and B)

<sup>\*</sup> Please contact your local Sony office or authorized dealer for compatibility information on the Linux Operating System.

\*\* Both Java Runtime Environment and Web Application Server are induded in the Web Gateway Module.

\*\*\* Downloadable from Web Gateway.

# **SPECIFICATIONS**

# Digital Hard Disk Recorder

	HSR-X206 HSR-X206P			
Video				
nput	6 channels, VBS, VS (BNC) 1.0 Vp-p, 75 $\Omega$ , unbalanced			
Output (Loop through)	6 channels, VBS, VS (BNC) 1.0 Vp-p, 75 Ω, unbalanced			
Monitor output 1	1 channel, VBS, VS (BNC) 1.0 Vp-p, 75 Ω, unbalanced			
Monitor output 2	1 channel, VBS, VS (BNC) 1.0 Vp-p, 75 $\Omega$ , unbalanced			
Video compression	Motion-JPEG			
Picture quality mode	HYPER: 52 kB/picture, SUPER: 44 kB/picture, HIGH: 32 B/picture, MID: 24 kB/picture, LOW: 17 kB/picture			
Picture resolution	720 x 240 pixels (Field mode) 720 x 288 pixels (Field mode)			
Horizontal resolution	More than 500 TV lines (Hyper mode)			
signal to noise ratio	48 dB (typical, Hyper mode)			
Audio	40 db (typical, hyper mode)			
MIC input	1 channel monaural (Mini jack), -60 dB, 10 kΩ, unbalanced			
ine input	1 channel monaural (Phono jack), -8 dB, 27 k $\Omega$ , unbalanced			
ine output	1 channel Monaural (Phono jack), -8 dB, 600 Ω, unbalanced			
ignal to noise ratio	40 dB (typical)			
Distortion	Less than 4 % at 1 kHz			
Network Interface	Less than 4-70 at 1 KHZ			
thernet	100Base-TX/10Base-T			
Alarm and Control Input				
Alarm in 1-6	Normal open, Low active			
Sensor Alarm out 1-6	Open collector, Low active			
Remote 1/Remote 2	2-wire type with resistance-based identification system			
Alarm out	Open collector, Low active			
Alarm reset	Incl. video loss reset, normal open, Low active			
Clock set in	Normal open, Low active			
Clock set out	5 V/5.7 kΩ, Low active			
lon rec out	Video loss alarm selectable, 5V/5.7 k $\Omega$ , Low active			
Varning out	5 V/5.7 kΩ, Low active			
Disk full out	5 V/5.7 kΩ, Low active			
Alarm full out		5 V/5.7 kΩ, Low active		
xternal timer in	Normal open, Low active			
General				
Лass	6.4 kg (14 lb 1 oz)			
Dimensions (W x H x D)	420 x 96 x 376 mm (16 5/8 x 3 7/8 x 14 7/8)			
ower requirements	AC 120 V, 60 Hz AC 220 V, 50/60 Hz			
ower consumption	32 W			
Operating temperature	5 to 40°C (41 to 104°F)			
Operating Humidity	Less than 80%			
HDD capacity	320 GB (160 GB x 2)			
Supplied accessories				
	AC power cord (1), Power cord tie (1), Rack mount kit (1), Operation Manual (1), Ferrite core (HSR-X206 (2), HSR-X206P (4))			

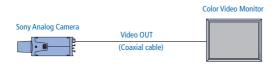
# Monitor

	LMD-1410	LMD-2010		
Picture Performance				
LCD Panel	14-inch LCD Monitor 20-inch LCD Monitor			
Туре	a-Si TFT Active Matrix LCD			
Resolution	640 x 480 dots			
Pixel efficiency	99.99%			
Dot pitch				
Picture Size (H x W)	Approx. 283.2 x 212.4 mm (11 1/4 x 8 3/8 inches)	Approx. 408.0 x 306.0 (16 1/8 x 12 1/8 inches)		
(Diagonal)	13.94 inches (354 mm)	20.1 inches (510 mm)		
Aspect	4:3			
Colors	16,770,000 colors			
Viewing Angle	85°/85°/85° (typical) (up/down/left/right contrast>10:1)			
Input/Output				
Input				
Line A	Composite (BNC x 1), Y/C (Mini DIN 4-pin x 1), Audio in (phono jack x 1)			
Line B	Composite (BNC x 1), Audio in (phono jack x 1)			
	Component or RGB (BNC x 3), Audio in (phono jack x 1)			
Remote Parallel	Modular 8-pin			
Output				
Line A	Composite (BNC x 1, automatic 75 $\Omega$ termination), Y/C (Mini DIN 4-pin x 1, automatic 75 $\Omega$ termination), Audio in (phono jack x 1)			
Line B	Composite (BNC x 1, automatic 75 $\Omega$ termination), Component or RGB (BNC	x 3, automatic 75 $\Omega$ termination), Audio in (phono jack x 1)		
Audio Output	0.5 W			
General				
Power Consumption	Approx. 50 W	Approx. 86 W		
Power requirement	AC100 to 240V, 50/60Hz			
Operating Temperature	0 to 35°C			
Operating Humidity	30 to 85% (no condensation)			
Storage & Transport Temperature	-10 to 40°C			
Storage & Transport Humidity	0 to 90%			
Operating/Storage/Trans. Pressure	700 to 1060 hPa			
Dimensions (W x H x D)				
Dimension with stand	Approx. 343 x 352 x 265 mm (13 5/8 x 13 7/8 x 10 1/2 inches)	Approx. 470 x 440 x 265 mm (18 3/8 x 17 3/8 x 10 1/2 inches)		
Dimension without stand	Approx. 343 x 304 x 87mm (13 5/8 x 12 x 3 1/2 inches)	Approx. 470 x 394 x 87mm (18 5/s x 15 5/s x 2 inches)		
Mass				
Panel & Stand Panel only	Approx. 6.9 Kg (15 ob 3 oz) Approx. 5.2 kg (11 lb 7 oz)	Approx. 9.7 Kg (21 lb 6 oz) Approx. 8.0 kg (17 lb 10 oz)		

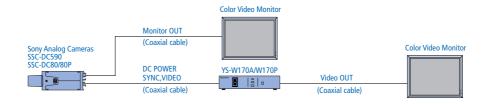
# **SYSTEM CONFIGRATIONS**

# **Analog Cameras**

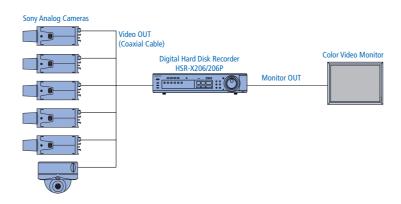
# **Single Camera Operation**



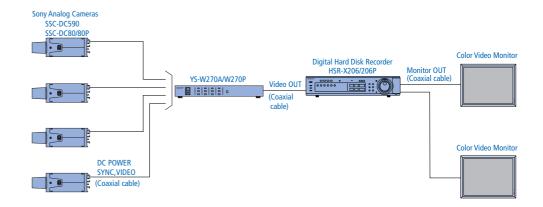
# Single Camera Opearation (Using the YS-W170A/W170P Camera Adaptor)



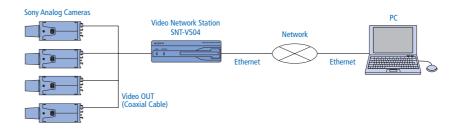
# **Multiple Camera Operation**



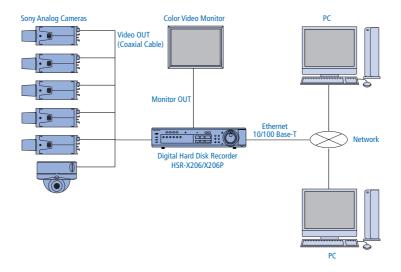
# Multiple Camera Opearion (Using the YS-W270A/W270P Camera Adaptor)



# Multiple Camera Operation over Network (Using the SNT-V504)



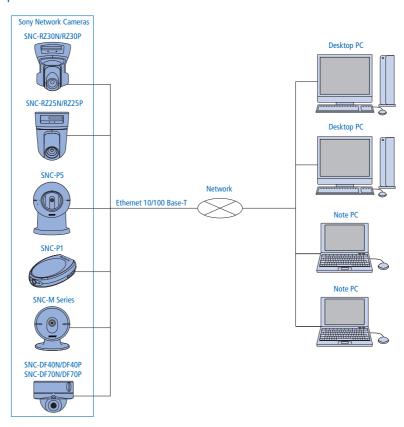
# Multiple Camera Operation over Network (Using the HSR-X206/X206P)



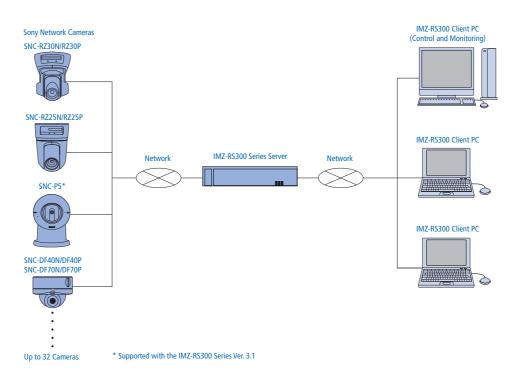
# **SYSTEM CONFIGRATIONS**

# **Network Cameras**

# Single or Multiple Camera Operation

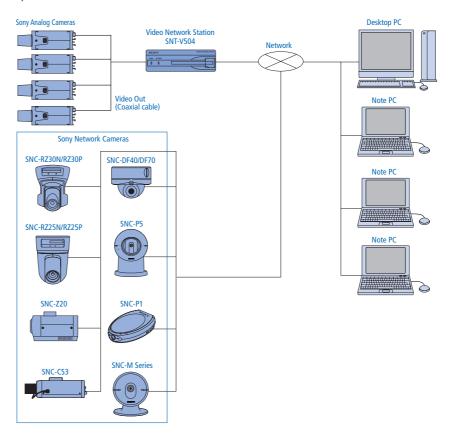


# **IMZ-RS300 Series Operation**

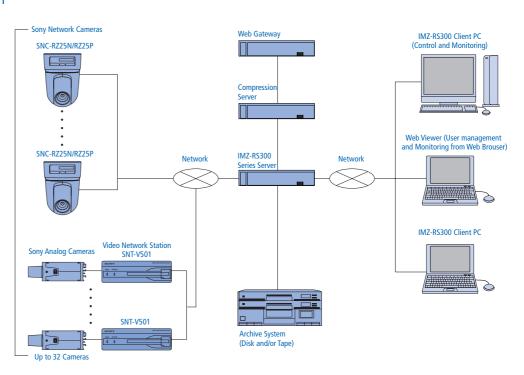


# **Network Cameras**

# Single and Multiple Camera Operation



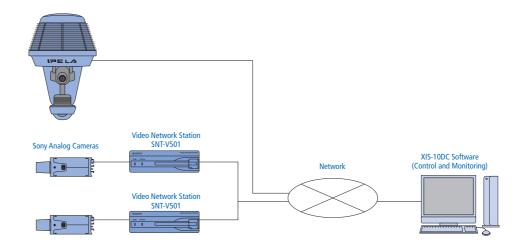
# **IMZ-RS300 Series Operation**



# **SYSTEM CONFIGRATIONS**

# **IP and Analog Cameras**

# XIS-10DC Operation



# **GLOSSARY**

# **Activity Detection**

A method of detecting activity in an image. Activity detection compares illumination levels between frames on a pixel-by-pixel basis. If the average change in luminance level from one frame to the next is greater than a pre-specified threshold, then an alarm is triggered.

# **Automatic Gain Control (AGC)**

Amplifies existing video to help camera reproduce a video signal at very low light levels.

# **Adaptive Picture Control (APC)**

Automatically detects the condition of the recording head and video cassette tape and then sets the optimum recording head current. Available on all SVT time lapse VCRs.

# **Adaptive Rate Control (ARC)**

A technology that automatically detects and compensates for network traffic when transferring MPEG-4 image data over a network. In order to prevent "Drop Outs" when the network becomes congested, ARC first lowers the data bit rate, and if the network is still congested, then ARC lowers the frame rate.

# **Aperture/Sharp Mode**

Makes object outline in the picture appear sharper. Ideal for situations where an object merges into the scene with a similar shade of color.

# **Auto Tracing White Balance (ATW)**

Adjusts the white balance automatically in response to varying light conditions.

# **ATW PRO**

Ideal for frequently changing light conditions and applications where the operator needs to see objects as they appear to the eye. Effective operational color range is 2500 to 6000K.

# **Auto Iris**

Automatically adjusts the iris element as the light level changes.

# **Auto White Balance (AWB)**

Automatically memorizes adjusted white balance values.

# **Backlight Compensation (BLC)**

Picture brightness is adjusted automatically depending on lighting conditions. Overcomes the problem of strong backlight which often causes the subject of the picture to be cast into shadow.

# **C Mount**

Type of camera mount which measures 17.5 mm from the lens rear mounting surface to the camera's CCD.

### **CS Mount**

Type of camera mount which measures 12.5 mm from the lens rear mounting surface to the camera's CCD. CS mount lenses can be used with C mount cameras by adding a 5 mm spacer.

### **DC Servo Auto Iris Lens**

Lens that relies on DC power from the camera to control the iris.

# **Digital Signal Processing (DSP)**

Converts the analog signal from a CCD image sensor into a digital signal through an internal A/D converter. The signal is then broken down into luminance and chrominance components for processing, adjustment and feature enhancement enabling many digital features such as backlight compensation.

# **Duplex**

Type of multiplexer allowing simultaneous live monitoring or playback as images are being recorded.

# **DynaView Technology**

A technology used to capture clear images even in extremely high-contrast lighting environments. When using DynaView technology, the camera actually captures the image twice - once at a normal shutter speed and then at a high shutter speed - and creates a composite high-contrast image.

# **Exwave HAD Technology**

Sony technology employing advanced sensor structure within the CCD resulting in improved sensitivity over Super HAD technology.

### **JPEG**

A compression method used in conventional surveillance and monitoring systems that is ideal for capturing high-quality still images

# **Motion Detection**

A method of detecting motion in an image. Motion detection uses vector information available and inherent in MPEG-4 compression. Motion detection has an advantage over activity detection because it can reduce the number of false alarms caused by noise.

### MPEG-4

A compression method that takes into account only the movement in an image when capturing data. MPEG-4 compression is ideal for data that is transferred over networks because of its relatively small data size.

# Sensitivity

The amount of light falling on a scene measured in lx.

### **Simplex**

Type of multiplexer which allows the user to choose between live monitoring, recording or playback.

### **Smear**

Vertical streaks above and below a brightly lit object or light source when observed on the monitor. Vertical lines on the screen are caused by the leakage of unwanted light onto the vertical shift register of the CCD.

# SuperExwave Technology

Sony camera technology that uses CCDs with advanced photo-diode sensors capable of capturing a great amount of light especially in the near infrared (IR) region of the spectrum. As a result, sensitivity levels have been improved by the following percentages when compared to Exwave HAD technology: Approximately 10% in the visible region, and approximately 50% in the near IR region.

# Super HAD Technology

Improves camera sensitivity by optimizing the shape of on-chip micro lenses on the CCD in order to minimize the invalid area between micro lenses of each pixel.

# **Synchronization**

Used in multi-camera installations where automatic switching is employed and allows roll-free switching from camera to camera.

# **Triple Multiplexing**

Video, sync and power transmitted over a single coaxial cable.

# **GLOSSARY**

# **Turbo AGC**

Powerful automatic gain control function. Increases range of video gain compared to conventional AGC resulting in greater sensitivity.

# **Variable Gamma Curve**

Four selectable gamma correction curves that control the brightness of captured images so that they can be displayed accurately (i.e. not too bright and not too dark).

# **Video Servo Auto Iris Lens**

Lens that relies on video input to control the iris opening. When the video level is high, the lens iris closes. When the video level is low, it opens

# **NOTES**

# SONY

# For Network Camera Users;

You should keep in mind that the images or audio\* you are monitoring through IP network camera may be protected by privacy and other legal rights, and the responsibility for making sure you are complying with applicable laws is yours alone. Access to the images and audio\* of IP network camera is protected only by a user name and the password you set up. No further authentication is provided nor should you presume that any other protective filtering is done by the service. Since the service is Internet-based, there is a risk that the image or audio\* you are monitoring can be viewed or used by a third-party via the network.

\*For equipments that support audio.

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